Mahdi Mirhoseini

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Current Position

Postdoctoral Fellow and Instructor at McMaster University   **Toronto**
McMaster Digital Transformation Research Centre (MDTRC)   *2018–Present*

Education

HEC Montréal   **Montréal**
PhD. Business Administration, Management Information Systems   *2012–2018*
Thesis Title: *Three Essays on the Use of Cognitive Load in Information Systems Design*
Supervisors: Prof. Pierre-Majorique Léger, Prof. Sylvain Sénécal

Sharif University of Technology   **Tehran**
M.Sc. Management Science   *2010–2012*
Thesis Title: *Investigating Users' Resistance to the Implementation of Hospital Information Systems*
Supervisors: Prof. MohammadTaghi Isaai

Sharif University of Technology   **Tehran**
B.Sc. Electrical Engineering, Control Systems   *2005–2010*

Publications

- **Mirhoseni, S.**, Hassanein K., Head M., Watter S. (2020) User Performance in the Face of IT Interruptions: The Role of Executive Functions. Lecture Notes in Information Systems and Organisation, vol 32. Springer, Cham

- **Mirhoseni, S.**, Hassanein K., Head M., "Exploring How Cognitive Differences Impact Behavior and Performance in The Face of IT Interruptions." SIGHCI 2019 Proceedings.

- **Mirhoseni, S.**, Leger, P., and Senecal, S., "Accumulated Cognitive Load as a Criterion for Evaluating IT Artifacts". Journal of the Association for Information Systems (Impact Factor=3.103) (Under Review).

- Desrochers, C., Léger, P., Fredette, M., **Mirhoseni, S.**, and Sénécal, S. (2019), "The arithmetic complexity of online grocery shopping: the moderating role of product pictures", Industrial Management and Data Systems, Vol. 119 No. 6, pp. 1206-1222. (Impact Factor=3.727)

- Page, S.,**Mirhoseni, S.**., Léger, P. M., Sénécal, S, "The impact of online grocery shopping characteristics on consumers' cognitive effort, e-satisfaction and the mediating role of cognitive absorption". Joural of Internet Commerce (Under review).

- **Mirhoseni, S.**, Bakhtiari, S., Shamy, N. E., Calic, C., Hassanein, K., "Exploring the association between belief in misinformation and neural correlates of System 1: An EEG study" (2019). Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2019.

- **Mirhoseni, S.**, Leger, P., and Senecal, S., "Investigating the Effect of Product Sorting and Users' Goal on Cognitive Load" (2017). SIGHCI 2017 Proceedings.

- **Mirhoseni, S.**, Léger PM., Sénécal S. (2017) The Influence of Task Characteristics on Multiple Objective and Subjective Cognitive Load Measures. Information Systems and Neuroscience. Lecture Notes in Information Systems and Organisation, vol 16. Springer, Cham

- **Mirhoseni, S.**, Leger, P., Senecal, S., "Investigating the Contingent Effect of Product Sorting and Users' Goal on Users' Mental Workload". AIS Transactions on Human-Computer Interaction (Under Review)

- Desrocher, C., Léger, P. M., Sénécal, S., Pagé, S. A., **Mirhoseini, S.**, "The influence of product type, mathematical complexity, and visual attention on the attitude toward the website: The case of online grocery shopping." (2015). SIGHCI 2015 Proceedings.

- **Mirhoseni, S.**, Leger P., Senecal S., Fredette M., Cameron A., Riedl R., Investigating the effect of input device on memory retrieval: Evidence from Theta and Alpha band oscillations, Pre-ICIS Workshop on Human Computer Interaction, 2013, Milan, Italy

- Senecal S., Leger P., Fredette M., Courtemanche F., Cameron A., **Mirhoseni, S.**, Paquet A., Riedl R., Mouse vs. Touch Screen as Input Device: Does it Influence Memory Retrieval?, International Conference of Information Systems, 2013, Milan, Italy

- Senecal S., Leger P., Fredette M., Courtemanche F., Cameron A., **Mirhoseni, S.**, Paquet A., Riedl R., Mouse vs. Finger as Input Device: Does it Influence Information Memorization?, Gmunden Retreat on NeuroIS Conference, 2013, Gmunden, Austria

- Hasanpour A., Kazemi R., Rasouli M., Jalalian M., **Mirhoseni, S.**, Tavazoei M., Privatization; Iran Power Industry As a Case Study, in proceeding of 29-th International System Dynamics Conference, 2011, Washington DC, USA

- **Mirhoseni, S.**, The Examination of Research Trend of Professors in Iran, in proceeding of 28-th International System Dynamics Conference, 2010, Seoul, South Korea

Work in Progress..

- **Mirhoseni, S.**, Hassanein, K., Head, M., "Building brain muscles to improve performance in the face of IT interruptions.". Target journal: ISR

- **Mirhoseni, S.**, Hassanein, K., "Cutting Through the Jungle of Deception: Understanding Why Online Users believe Disinformation and Developing Potential Countermeasures". Target journal: JMIS (special issue on fake news on social media)

- **Mirhoseni, S.**, Hassanein, K., Head, M., "User Behavior and Performance in The Face of IT Interruptions: The Role of Executive Functions". Target journal: JMIS

- **Mirhoseni, S.**, Ghasemaghaei M., "How the Bigness of Data Impacts the Cognitive and Affective State of an Executive Decision-Maker". Target journal: Decision Support Systems

- **Mirhoseni, S.**, "Reproducing the Sensory Information of Products Using IT Artifacts". Target Journal: Australian Journal of Information Systems.

Teaching Experience

Business Process Management with SAP   *Fall 2019, McMaster University*
MBA course

Information Technologies in Organizations   *Winter 2018, HEC Montréal*
Undergraduate level (BBA) course

Information Technologies in Organizations   *Fall 2017, HEC Montréal*

Teaching-Related Certificates

SAP S/4 HANA TS410 Cetrified   *Summer 2019, HEC Montréal*

ERPsim Level 2 Cetrified   *Summer 2018, HEC Montréal*

ERPsim Level 1 Cetrified   *Summer 2017, HEC Montréal*

Teacher Assistant

Game Theory   *Winter 2011, Sharif University of Technology*

System Dynamics   *Winter 2010, Sharif University of Technology*
Lead Tutorial Assistant

Signals and Systems   *Fall 2008, Sharif University of Technology*

Selected PhD Course works

Strategic Management of Information Systems, Experimental Design and Statistics, IT adoption and Acceptance, Online Consumer Marketing, Teaching and Learning in Higher Education, Theory Building in Social Science, Research Methods, Consumer Research Methodology, Measurement

Research Skills

o **Experimental Design**
o **Probability and Statistics**: Statistical Modeling and Analysis, Random Process, and Signal and Systems
o **Machine Learning and Data Mining**: Regression, Classification, and Clustering
o **Statistical and Data Analytics Tools**: Stata, SPSS, SAS, LISREL, and SmartPLS
o **Programming**: C, C++, Assembly, Matlab experience: matrix computations, linear algebra, statistics
o **Theory Building**
o **Systematic Literature Review**

- **Eyetracking**: Data Acquisition and Analysis
- **EEG**: Data Acquisition and Analysis (Continuous EEG, Event-Related-Potentials, Cross Frequency Coupling
- **Self-report Scales**: Scale Development and Structural Equation Modeling

Research Presentations

- **Mirhoseini S.**, Cognitive Load Definition and Measurement, Tech3Lab workshop, HEC Montréal, March 2017
- **Mirhoseini S.**, Accumulated load as a criteria for designing more convenient information systems, Tech3Lab Annual Conference, HEC Montréal, August 2016
- **Mirhoseini S.**, The Influence of Task Characteristics on Multiple Objective and Subjective Cognitive Load Measures. Gmundent Retreat on NeuroIS, Austria, June 2016
- **Mirhoseini S.**, Measureing User Cognitive Load in an Online Shopping Task, PhD Workshop, HEC Montréal, March 2016
- **Mirhoseini S.**, Extracting Three Features from Instantaneous Cognitive Load, Tech3Lab Annual Conference, HEC Montréal, August 2015
- **Mirhoseini S.**, User cognitive load in online grocery shopping, Groupe de recherche en systèmes d'information, HEC Montréal, May 2015
- **Mirhoseini S.**, Reproducing Sensory Information of Products with Technology in a Virtual Experience, NeuroIS workshop, HEC Montréal, June 2013

Research Experience

Digital Transformation Center   **McMaster University**
Post Doctoral Fellow   *2018-Present*
- Desiging experiments to study IT interruptions;
- Writing research grants (SSHRC and NSERC)
- Supervising undergatuate graduate students
- Managing multiple research projcts with industry partners

Tech3Lab   **HEC Montréal**
Research assistant   *2012-2018*
- Designed and ran four laboratory experiments using different experimental design softwares: Eprime, SMI, Tobii;
- Collected data using various methods: Questionnair, Observation, Interview, Eyetracking, Computer logs, Electroencephalography (EEG), Sking conductance;
- Conducted data analysis on various types of data: Psychometric data, Neurophysiological data (EEG, Eyetracking, EMG, Skin conductance), Qualitative data;
- Gained experience with statistical analysis softwares: Stata, MATLAB, EEGLAB, SPSS, SAS, LISREL, SmartPLS, AMOS;

GSME   **Sharif University of Technology**
Research assistant   *2010-2012*
- Conducted a research project on the impact of transformational leadership on creativity and Innovation in organization: case of Kalleh Dairy co;
- Researched on cultural barriers in implementing clinical information systems: case of Tehran Heart Hospital;

Other Technical Skills

- **Computer Applications**: ERPsim, Vensim, Microsoft Access, Microsoft Office (for Windows, OS X, and Linux platforms)
- **Operating Systems**: Microsoft Windows family, Mac OS X, Linux

Awards and Honors

- HEC Montréal merit based research scholarship, Winter 2015
- HEC Montréal entrance fellowship, Fall 2012

Languages

Farsi: Native

English: Fluent

French: Elementary

Other Experience

- Elected president of RESANA student group. (RESANA is the scientific and cultural group of students, performing all types of extracurricular activities in electrical engineering Department, 2007-2008
- Head of Executive Team of the 1st National Conference Reconstruction in Electrical Industry, Sharif University of Technology, 2007
- Elected member of the Students Union in Electrical Engineering Department, Sharif University of Technology, (Student Union members are responsible for negotiating with the department on behalf of all the students and pursuing their rights and requests.), 2006-2007