Tutorial on the use of functional Magnetic Resonance Imaging (fMRI) in IS Research

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Abstract

This tutorial will discuss a set of guidelines for conducting a functional Magnetic Resonance Imaging (fMRI) study in IS research. Given the increased interest in using neuroimaging tools in the IS discipline, this tutorial aims at presenting the key steps needed to conduct an fMRI study. The tutorial will capture the four key steps needed to undertake an fMRI study: (1) formulating the research question, (2) designing the fMRI protocol, (3) analyzing fMRI data, and (4) interpreting fMRI results. These steps will be illustrated with several comparative studies between psychometric self-reported measures of various IS constructs with their corresponding brain activations when subjects responded to the psychometric measures of these constructs while their brain activity was captured in an fMRI scanner. This tutorial will also discuss the extent and meaning of the correlations between the psychometric measures and the corresponding brain activations, drawing comparisons among these correlations in the more affective versus the more cognitive areas of the brain. The relative predictive power of brain and self-reported data will also be discussed. Finally, detailed guidelines for designing high-quality fMRI studies and for capturing the full descriptive and predictive power of brain data will be derived.

Workshop Leader Information (Please attach a copy of your resume in your email submission)

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Additional Workshop Presenters (copy for each one)

Name: 
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**Speakers’ background, description of workshop, and envisioned activities during the workshop (please provide information for each speaker)**

**Detailed Description**

**Angelika Dimoka** is an Assistant Professor of Marketing and Management Information Systems at the Fox School of Business and the Director of the Center for Neural Decision Making at Temple University. She received her PhD from the University of Southern California. Her research interests lie on decision neuroscience, NeuroIS, neuromarketing, and electronic commerce. Dr. Dimoka’s expertise lies among others on the use of brain imaging devices to understand consumer’s decision making.

**Special Requirements**

Note: Regular equipment includes a computer, projector and screen.

( ) Computers  
( ) Internet Access  
( ) Others, Please specify: ______________________

**Audience**

Insert a description of likely participants

Maximum number of participants: 50

Specify the requirements for the audience such as computer, special software, and Internet access etc., in the following: N/A