

Title:

Using web-based experiments to support transparent and reproducible research

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Abstract:

Open-access tools to conduct behavioral research on the web abound, but integrating all of the necessary components to create a fully-functional experiment can be difficult. From coding in JavaScript, to launching and maintaining a database, to automating subject compensation, diverse skills are required for successful deployment and execution. In this talk, I will present my laboratory's fully transparent, reproducible, end-to-end pipeline for cognitive and perceptual experiments. This work incorporates the jsPsych library (de Leeuw, 2015) to create behavioral tasks, utilizes the web API in Google Drive to create URLs and store data, and automates compensation (credit) administration for SONA system users in university systems. Moreover, by using GitHub for code storage and version control, this pipeline represents a fully transparent, reproducible protocol that can be easily adapted by researchers at other universities. I will present several projects created by UF psychology undergraduate students who have gone from no coding experience to successful project launch in six months of training, and discuss implications of this work for the greater Open Science movement.