October 14, 2020

Joerg Heber, PhD
Editor-in-Chief
PLOS ONE

Dear Dr. Heber:

Please find enclosed a research article submission to PLOS ONE entitled *"Impact of delayed response on Wearable Cognitive Assistance"*. This manuscript presents a study on the physiological and behavioral reactions of users of Wearable Cognitive Assistance (WCA) to delays in the application pipeline. This question was approached with real-time measures in a controlled experiment, using an instrumented WCA testbed. We found that delay appears to affect the cognitive plan of users, preventing them from automating the task, and that the strength of this effect seems to be modulated by individual differences in users. We believe these results provide key insights for developers and system designers working on cost-efficient strategies for resource allocation in these systems, as well as both new and existing synthetic models of human behavior for WCA.

The paper connects the current research to previously published work in two broad areas: human time perception and response to system delays in human-computer interaction. Our review establishes that time perception is subject to contextual influences and that self-paced behavior is not regulated by an internal clock. Our review of delays in human-computer interaction describes consequences known in the literature, like attention lapses and frustration, and further uses prior research to propose cognitive and emotional mechanisms that might mediate these effects.

We do not have any opposed reviewers, and we suggest the following Academic Editors to handle this submission (in order of preference): (1) Borsci, Simone; (2) Lv, Zhihan, and (3) Ostadabbas, Sarah

I will be serving as the corresponding author for the manuscript, assuming all the responsibilities this entails. All of the authors listed have agreed to the byline order and to submission of the manuscript, and understand that, if accepted for publication, a certification of authorship form will be required that will be signed by all of us.

Sincerely,

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