MEMORANDUM

DATE: April 14, 2020

TO: Douglas Andrew Bowman, Christopher L North, Payel Bandyopadhyay, Lee Lisle, Ed Gitre, Kylie Marie Davidson, Tianyu Ge, MD Momen Bhuiyan

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires October 29, 2024)

PROTOCOL TITLE: Immersive Space to Think

IRB NUMBER: 19-561

Effective April 14, 2020, the Virginia Tech Institution Review Board (IRB) approved the Amendment request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at: https://secure.research.vt.edu/external/irb/responsibilities.htm

(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:

Approved As: Expedited, under 45 CFR 46.110 category(ies) 6,7
Protocol Approval Date: September 26, 2019
Progress Review Date: September 25, 2020

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.
SPECIAL INSTRUCTIONS:

*** The Virginia Tech IRB/HRPP has requested that research involving person-to-person contact or gatherings of human research participants be paused as soon as possible. The duration of the pause is unknown, but to reduce disruption to the extent possible, we will be reassessing daily. Although we continue to issue approval notices, Virginia Tech guidance should be followed. Please visit https://www.research.vt.edu/covid-19-updates-impacts.html for updates.

This amendment, submitted April 3, 2020, updates research personnel to add Kylie Davidson, MD Momen Bhuiyan, and Tianyu Ge

<table>
<thead>
<tr>
<th>Date*</th>
<th>OSP Number</th>
<th>Sponsor</th>
<th>Grant Comparison Conducted?</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/03/2019</td>
<td>PET47EVN</td>
<td>University of California, Santa Barbara (Title: View management and user interface optimization for wide-area mobile augmented real)</td>
<td>Compared on 09/20/2019</td>
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* Date this proposal number was compared, assessed as not requiring comparison, or comparison information was revised.

If this protocol is to cover any other grant proposals, please contact the HRPP office (irb@vt.edu) immediately.