Documentation Changes

For External Users and DMAT Team

Version	Author(s)
1.0	Taheriyan, F.
Date	**Editor(s)**
April 17, 2024	Taheriyan, F., Das, D., Kahraman, K., Sripad, P., Brown, T., Melloni, L., Bonacchi, N.

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Introduction

In this document, a record of changes made to previous versions of the Data Release Document is maintained.

v1.0 → v1.1

The revisions or changes from v1.0 (MEEG-DR-doc_2024-03-18_v1.0) to v1.1 (iEEG-DR-doc_2024-04-03_v1.1) are as follows:

Page*	Heading	Description of Change	Changed by
4	Updates	**1st Paragraph:** first version (V1.0) → second version (V1.1) **2nd Paragraph:** In V1.0, we released a subset of magnetoencephalography (MEG) data (batch 1) in the Brain Imaging Data Structure (BIDS) format. It includes data from 48 subjects who participated in Experiment 1, packaged in a Bundle format. → In V1.1, the raw/unprocessed and BIDS (Brain Imaging Data Structure) format of iEEG (intracranial electroencephalography) data, collected by the Cogitate Consortium for Experiment 1, are released. **3rd Paragraph:** Removing "**The demography of subjects for this release can be found here."	Fatemeh Taheriyan
4	Future Releases	• BIDS format of the rest of the M-EEG data along with the unprocessed/raw data • Unprocessed/raw and BIDS format of fMRI and iEEG data → • BIDS format of the M-EEG data (batch 2) • Unprocessed/raw format of all M-EEG data (batch 1 and batch 2) • Unprocessed/raw and BIDS format of fMRI data	Fatemeh Taheriyan
4	After "Future Releases"	Adding "Previous Releases" and "Documentation Changes" sections	Fatemeh Taheriyan
5	Overview of COGITATE	Updating Harin's figure: overview_graphic Deleting "(over 550 subjects from different populations)" "invasive intracortical recordings" → "intracranial electrocorticography"	Fatemeh Taheriyan

6	Experiments	Rephrasing 1st sentence of 1st paragraph: “two sets of clearly visible task relevant and irrelevant stimuli were shown to the subjects with different durations” → “a set of clearly visible task relevant and irrelevant stimuli was shown to the subjects with different durations”	Fatemeh Taheriyan
7	Design	**Stimulus Category (4), Column 2:** Adding “*20 identities for each category” **Stimulus Orientation (2), Column 2:** • Side view (right or left view) → Side view (25% right and 25% left) • Front view → Front view (50%)	Fatemeh Taheriyan
7	Sample Size	44 for iEEG → 38 for iEEG	Fatemeh Taheriyan
8	COGITATE Dataset	**1st Paragraph:** 266* subjects → 262 subjects *The total number of subjects was wrong even with considering the reported number of subjects for each modality	Fatemeh Taheriyan
9	COGITATE Dataset	**4th Paragraph**: 44 patients → 38 patients	Fatemeh Taheriyan
10	COGITATE Dataset	Substituting the plots [Age Histograms across Modalities, Sex Proportions across Modalities, Handedness Proportions across Modalities] with the updated versions Minor change in the captions: Age Histograms across Modalities → Age histograms across modalities Sex Proportions across Modalities → Sex proportions across modalities Handedness Proportions across Modalities → Handedness proportions across modalities	Fatemeh Taheriyan
11	Demography of Subjects	Updating the file of subjects_demography	Fatemeh Taheriyan
12	Quality Check	Deleting “and for iEEG, a more relaxed criteria of 70% Hits and 30% FAs was used. Two M-EEG subjects were excluded due to low hit rates and one iEEG patient was excluded due to high FAs”	Fatemeh Taheriyan
12	Exclusion Criteria	Deleting “<70% Hits, >30% FAs for iEEG patients”	Fatemeh Taheriyan
13	File type glossary	Changing the format of title: File type glossary → File Type Glossary Edition in **Row 2**, **Column 4** | 2nd paragraph | Explanation of “EyeLink eye tracker”: “our data” → “our data analysis”	Fatemeh Taheriyan

14	File Type Glossary	Edition in **Row 2**, **Column 4** | numerical list for files generated by eye tracking systems: • Added "[EyeLink eye tracker]" to the Fixations, Saccades, and Blinks • Added item 7 → Description of Triggers	Fatemeh Taheriyan
15	File type glossary	Adding ECoG (iEEG) related information to the table	Fatemeh Taheriyan
15	Data Acquisition	data release: M-EEG → data release: M-EEG, iEEG	Fatemeh Taheriyan
15	Stimuli	Adding "(30° and -30°)" and "0°"	Fatemeh Taheriyan
15	Procedure	Added a table describing some terms and their definition Edited the entire text	Fatemeh Taheriyan
18	Anatomical MRI Data Acquisition	**For CHBH:** Adding TR/TE = 2000/2.03ms; TI = 880 ms; 8° flip angle **For PKU:** Correcting 1 x 1 x 1 mm → 0.5 x 0.5 x 1 mm, 198 sagittal slices → 192 sagittal slices, FOV: 256 × 256 matrix → 448 × 512 matrix Adding TR/TE = 2530/2.98ms; TI = 1100 ms; 7° flip angle, 192 sagittal slices; FOV: 448 × 512 matrix Adding a table for MR imaging parameters	Fatemeh Taheriyan
18	Behavioral Setup	Changing the title: Behavioral Setup → Behavioral Data Acquisition	Fatemeh Taheriyan
18	Behavioral Setup	Changing the content to "The task was executed using Matlab (CHBH: R2019b, PKU: R2018b) with Psychtoolbox v.3 (Pelli, 1997) on a custom PC at CHBH and a Dell XPS desktop PC at PKU. Visual stimuli were presented on a screen placed in front of the subjects with a PROPixx DLP LED projector (VPixx Technologies Inc.) at a resolution of 1920 x 1080 pixels and a refresh rate of 120 Hz. The distance between the subject's eyes and the screen was different at each site (CHBH: 119 cm, PKU: 85 cm) to achieve the same FOV of 36.6 x 21.2 degrees. Participants responded with both hands using two 5-button response boxes (CHBH: NAtA, PKU: SINORAD)."	Fatemeh Taheriyan
18	Eye Tracking	Changing the title: Eye Tracking → Eye Tracking Data Acquisition	Fatemeh Taheriyan

		Adding “The channel name that contains the eye tracker data in the FIF file is as follows: MISC1 (X), MISC2 (Y), and MISC3 (pupil)”	
19	Eye Tracker and MEG Code Scheme	Removing the text below: “The channel name that contains the eye tracker data in the FIF file is as follows: MISC1 (X), MISC2 (Y), and MISC3 (pupil) **Defining some terms** Trial: Stimulus presentation followed by a fixation (the two add up to 2 sec) followed by a jitter of 200 msec to 2000 ms. Mini block: presentation of 34 to 38 stimuli, in the beginning of which the target stimuli were presented. Block: composed of 4 mini blocks. At the end of each block, there was a break. Break: Pause between 2 blocks”	Fatemeh Taheriyan
21	How The LPT Triggers Were Sent	**2nd Paragraph:** “mini block” → “miniblock”	Fatemeh Taheriyan
21	Task (tM-EEG)	Adding “tM-EEG consisted of 10 runs, with 4 blocks each. During each block, a ratio of 34-38 trials was presented, with 32 non-targets (8 of each category), 2-6 targets (number chosen randomly), and each trial lasting 2.4 s approximately. Rest breaks between runs and blocks were included. Random jitter was added at the end of each trial (mean inter-trial interval of 0.4 s jittered 0.2-2.0 s, truncated exponential distribution) to avoid periodic presentation of the stimuli.”	Fatemeh Taheriyan
22	Quality Check and Exclusion Criteria	Removing “N=30”	Fatemeh Taheriyan
22	Between “Quality Check and Exclusion Criteria” and “Data Curation Procedures”	Adding iEEG section	Fatemeh Taheriyan
22	Data Curation Procedures	Adding the main title of “Curation Procedures” Adding the subtitle of “Deviations from Data Curation Procedure” Adding the deviations for iEEG	Fatemeh Taheriyan

22	After “Data Curation Standard Operating Procedure”	Adding Metadata Curation Standard Operating Procedure section	Fatemeh Taheriyan
34	After “Raw M-EEG Data Directory Structure”	Adding “Raw iEEG Data Directory Structure”	Fatemeh Taheriyan
34	BIDS Format	Adding a paragraph explaining BIDS file structure	Fatemeh Taheriyan
36	After “BIDS M-EEG Data Directory Structure”	Adding “BIDS iEEG Data Directory Structure”	Fatemeh Taheriyan
39	Links and Reference Materials	**1st Table, Column 1:** Adding YouTube logo to the “YouTube Demos” **1st Table, Column 2:** Updating the link of Subjects Demography **2nd Table, Column 3:** Changing 44 to 38 **2nd Table, Column 4:** Adding iEEG reference materials	Fatemeh Taheriyan
40	Appendices	Adding Appendix 8. Metadata Curation Standard Operating Procedure Adding Appendix 9. iEEG Standard Operating Procedure	Fatemeh Taheriyan
40	Acknowledgements	Adding the logo of Templeton World Charity Foundation	Fatemeh Taheriyan
41	Appendix 1. Screening Form	Adding “M-EEG Screening Form” title	Fatemeh Taheriyan
42	Appendix 2. Case Report Form	This form is for reporting → This form was for reporting the operator should fill out this form → the operator filled out this form	Fatemeh Taheriyan
42	M-EEG Case Report Form	the below items are asked → the below items were asked	Fatemeh Taheriyan
42	After “M-EEG Case Report Form”	Adding “iEEG Case Report Form” information	Fatemeh Taheriyan
43	References	Adding new references	Fatemeh

		Adding ”doi” of papers Hyperlinking the references	Taheriyan

***Page*:** *Page number is based on the pdf version of each Data Release Document which is uploaded in COGITATE GitHub repository. For instance, for v1.0 → v1.1, the “MEEG-DR-doc_2024-03-18_v1.0.pdf” is considered as the reference file and all of the differences between v1.0 and v1.1 are listed based on it.*