EEGManySteps Kickoff

presented by:

Nadine, Sein, Yahya & Julius

Recap and what happened since MOBI (Julius)

- Start project across multiple labs to understand the influences of software and hardware in mobile EEG
- Understand reproducibility of our results
- Maybe derive recommendations or guidelines for good practice in MoBI (hardware & software)

- Website with goals and project structure
- 2. Meeting with EEGManyPipelines team
- Role assignments for EEGManySteps
- 4. Plans to open project to the general public

Agenda

- 1) Finalizing the temporary members of the steering committee and the advisory board.
- 2) Discussing the Methodology and work packages (WP).
- 3) Organizational aspects: domain name, regular meeting times, communication, public announcement.

Questions we do NOT answer in today's meeting, but in the future

Exact research questions for the EEGManySteps

- Existing vs. new datasets

- Define the exact content of each work package

Tentative Role Definitions (Nadine)

Steering Committee Members

Expected to attend monthly meetings and take on specific tasks within the project.

Minimal requirement: Authorship in one or more peer-reviewed MoBI paper or extensive experience in similar open science projects. At least 1 year.

Advisory Board Members

Provide background support and feedback during quarterly/biannual meetings to guide the project's direction. Minimal requirement: First or last author in a peer-reviewed MoBI/Biomechanics paper or extensive experience in similar open science projects. At least 1 year.

[Data Set Contributors]

Provide access to EEG datasets recorded in mobile settings. Detailed requirements are still to be determined.

Minimal requirement: Responsible for the acquisition, curation, or formatting of mobile EEG data.

[Analysts]

Participate in analyzing specific research questions related to mobile EEG data.

Minimal requirement: Experience with the analysis of biomechanical or MoBI data.

Current Members

Steering Committee: Aitana Grasso Cladera, *Anna Wunderlich, Claudia Gianelli,* Elena Cesnaite, Janna Protzak, Julius Welzel, Nadine Jacobsen, Sein Jeung, Yahya Seyed Shirazi, Yu-Fang Yang

Advisory Board: Benedikt Ehinger, Dan Ferris, Edmund Wascher, Fiorenzo Artoni, *Helen Huang*, John Iversen, Klaus Gramann, Mathias Vukelic, *Pierfilippo De Sanctis*, *Scott Makeig*, Stefan Debener, *Tjeerd Boonstra*, *Tomer Yona*

[Dataset Contributor]: Anna Wunderlich, Benedikt Ehinger, Deepak Ravi, Daghan Piskin, Janna Protzak, Klaus Gramann, Karina Maciejewska, Nadine Jacobsen, Sein Jeung, Simon Ladouce, Tjeerd Boonstra, Zhongke Mei (Matt)

[Analyst]: Benedikt Ehinger, Deepak Ravi, Daghan Piskin, Janna Protzak, Karina Maciejewska, Simon Ladouce, Zhongke Mei (Matt)

Potential work packages (Yahya)

WP1: Experimental protocols (<u>existing</u>) and data collection (new)

WP2: Data curation (EEG & Motion in BIDS + sensor locations)

WP3: Preprocessing (current standards)

WP4: Analysis (gait vs experimental markers)

WP5: Future recommendations

Domain name (Sein)

Suggestions:

- EEGManySteps.org
- 2. github.com/EEGManySteps

Regular meeting times

Steering Committee Members: Monthly

Advisory Board Members: Quarterly/bi-annual

Communication

Mail, Mattermost, Discord

Potential funding

What does EEGManySteps need?

100% shared PostDoc positions (4 x 25%)

Budget for outsourcing software

Next steps

- Ask publicly for participation via mailing lists (EEGLab, fieldtrip, MNE)
- Everyone can propose goals
- SC and AB will shape goals
- SC defines WPs which can address the goals
- Identify potential funding opportunities

Planned milestones:

- 1. Position paper (2024/2025)
- 2. Apply for funding (early 2025)