EEGManySteps: Investigating the Influence of Experimental Setups on Gait-Related EEG through Collaborative Data Collection and Analysis

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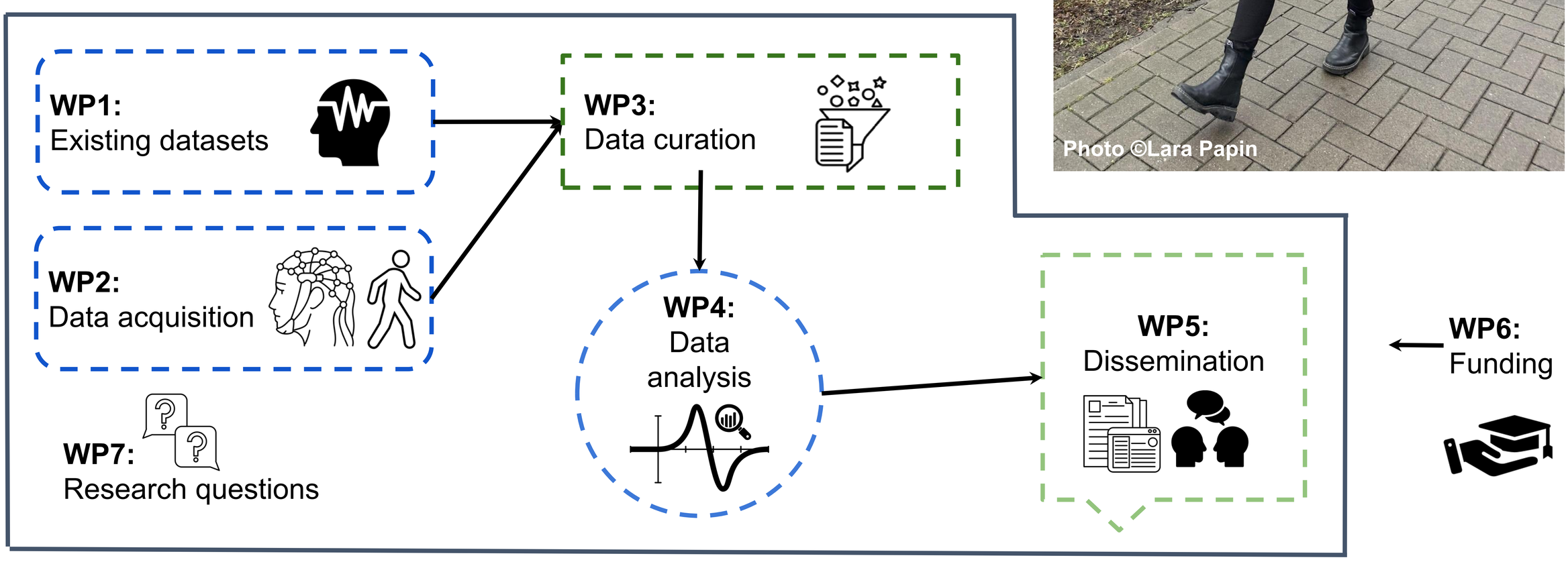
How much do hardware and software setups shape study outcomes? Inspired by *EEGManyLabs*[1] & *EEGManyPipelines*[2], we aim to enhance the reproducibility of mobile EEG by analyzing walking-EEG data collected across diverse setups worldwide.

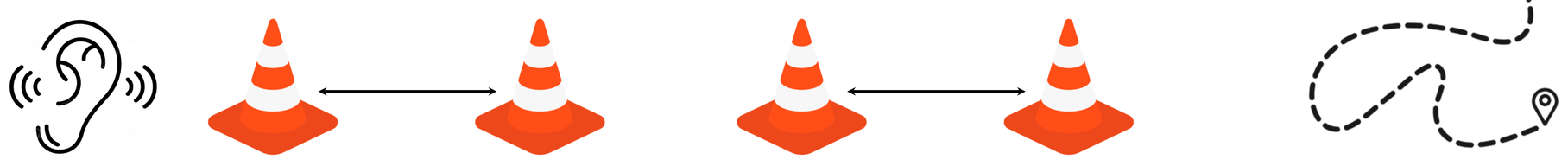
Goals

1. Identify step-specific time-frequency patterns in EEG data during walking.
2. Characterize gait-related artifacts across different systems.
3. Assess the influence of preprocessing methods on EEG results collected during walking.
4. Investigate gait-related modulation of secondary task correlates.

Project Structure



Submission Types



Join us!

References

[1]Pavlov, Y. G., Adamian, N., Appelhoff, S., Arvaneh, M., Benwell, C. S., Beste, C., ... & Mushtaq, F. (2021). #EEGManyLabs: Investigating the replicability of influential EEG experiments. cortex, 144, 213-229.

[2]Trübutschek, D., Yang, Y. F., Gianelli, C., Cesnaite, E., Fischer, N. L., Vinding, M. C., ... & Nilsonne, G. (2024). EEGManyPipelines: a large-scale, grassroots multi-analyst study of electroencephalography analysis practices in the wild. *Journal of Cognitive Neuroscience*, *36*(2), 217-224.