META-IMU: AN APPLICATION FOR SYSTEMATIC REVIEW AND META-ANALYSIS
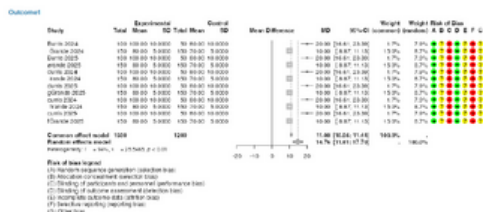
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AT A GLANCE

Meta-IMU is designed to simplify the systematic review and meta-analysis process by offering a single, easy-to-use platform. The application caters especially to beginners, offering a cost-free solution with no need for programming expertise. While initially offered for free to faculty members, Meta-IMU's comprehensive features and intuitive interface provide the groundwork for future commercialization, allowing it to evolve from a freely available educational tool to a potential revenue-generating product.

CHALLENGES ⌄

The main challenge addressed by Meta-IMU is the complexity and overwhelming nature of conducting a systematic review with meta-analysis, especially for beginners. Current tools often require specialized knowledge, cover only specific aspects of the process, or come with high costs. This complexity makes it difficult for new users to accurately select studies, analyze data, and generate relevant outputs (e.g. Forest plots, funnel plots, risk of bias analysis and regression), which are essential for making informed conclusions in meta-analysis.

THE INNOVATION ⌄

Meta-IMU is a Shiny-based application that provides an integrated, user-friendly solution for conducting meta-analysis. It combines multiple steps—such as study selection, data analysis, and visualization—into a single platform with an intuitive interface. Unlike existing software that only addresses specific stages of the process, Meta-IMU offers a comprehensive approach and is designed for accessibility, requiring no programming skills and being available as freeware, at least initially.

THE OPPORTUNITY ⌄

Meta-IMU presents a significant opportunity to democratize the meta-analysis process, making it accessible to researchers without advanced statistical skills or large budgets. By offering a free, all-in-one solution, it appeals to educational institutions, independent researchers, and low-resource settings. Initially intended for free use by faculty members, Meta-IMU also has future commercialization potential, creating opportunities for revenue generation and expanded functionality as the user base grows.