

# Introducing a New JavaScript Framework for Professional Online Studies.

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**Abstract:** New possibilities such as online crowdsourcing (Amazon Mechanical Turk), open data repositories (Open Science Framework), and online analysis (Ipython notebook) offer rich possibilities to improve, validate, and speed up research. However, until today there is no cross-platform integration of these subsystems. Furthermore, implementation of online studies still suffers from the complex implementation (server infrastructure, database programming, security considerations etc.). Here we present LabVanced, a JavaScript framework that constitutes methodological innovation by combining three essential aspects for online research. With our framework studies can be implemented in an intuitive graphical user interface without programming. Second, the framework takes care about participant recruitment and third, it outlines options for data visualizations and statistical analysis. Additionally, the framework can be used for sharing not only the recorded data, but also the study design and the analysis. In summary, we introduce a new powerful JavaScript framework for improving and accelerating online research.