



ΚΥΚΛΟΣ ΣΕΜΙΝΑΡΙΩΝ ΣΤΑΤΙΣΤΙΚΗΣ ΙΟΥΝΙΟΣ 2017

Ioannis Thomas Pavlidis

Eckhard-Pfeiffer Professor, Computational Physiology Lab, University of Houston

Reforming Data Management in Human Experiments

ΤΕΤΑΡΤΗ 21/6/2017
12:15

**ΑΙΘΟΥΣΑ 802, 8^{ος} ΟΡΟΦΟΣ,
ΚΤΙΡΙΟ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ
(ΕΥΕΛΠΙΔΩΝ & ΛΕΥΚΑΔΟΣ)**

ΠΕΡΙΛΗΨΗ

Data-driven research in human experiments constitutes a prominent segment of modern scientific inquiry. Such research carries significant impact, because it holds the key to understanding behaviors and illnesses. As the size, variety, and scope of data increase, it is becoming evident that the scientific method is strained, compromising the integrity and reproducibility of results in human-centered investigations. To address this issue, we have developed Subject Book, a communal software tool that reduces the massive multimodal data often standing between the experimental design and the hypothesis tests into a series of traceable and well-understood abstractions. Subject Book fulfills its mission through instant curation of data, multi-level visualization, and insistence on pre-planned tests. This curation-visualization-testing process, which represents the study lifecycle, has been automated, to suppress delays and data mismanagement. As a result, Subject Book produces efficient, high quality, and sharable data products that facilitate the scientific discourse.



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**ROOM 802, 8th FLOOR,
POSTGRADUATE STUDIES BUILDING
(EVELPIDON & LEFKADOS)**

ABSTRACT

Data-driven research in human experiments constitutes a prominent segment of modern scientific inquiry. Such research carries significant impact, because it holds the key to understanding behaviors and illnesses. As the size, variety, and scope of data increase, it is becoming evident that the scientific method is strained, compromising the integrity and reproducibility of results in human-centered investigations. To address this issue, we have developed Subject Book, a communal software tool that reduces the massive multimodal data often standing between the experimental design and the hypothesis tests into a series of traceable and well-understood abstractions. Subject Book fulfills its mission through instant curation of data, multi-level visualization, and insistence on pre-planned tests. This curation-visualization-testing process, which represents the study lifecycle, has been automated, to suppress delays and data mismanagement. As a result, Subject Book produces efficient, high quality, and sharable data products that facilitate the scientific discourse.