Research Electronic Data Capture (REDCap)

Florida International University, in collaboration with Vanderbilt University and a consortium of more than 1,000 institutional partners, has developed a software toolset and workflow methodology for electronic collection and management of research and clinical trial data called Research Electronic Data Capture (REDCap).

REDCap is a scalable, secure, enterprise-level application. Planning, configuration and end-user support for REDCap (https://cateredcap.fiu.edu/) is provided by the Integrated Biostatistics Center (IBC), which is comprised of faculty and staff from the Center for Children and Families (http://ccf.fiu.edu) and the Department of Biostatistics (http://rscphsw.fiu.edu/biostatistics).

The software is delivered via 256 bit SSL-encryption, and features: 1) an intuitive interface for the creation of case report forms (CRFs) and validated data entry; 2) audit trails for tracking data manipulation and export procedures; 3) procedures for importing data from external sources; the ability to relate CRFs to study events and schedule subjects via a calendar function; 4) extensive survey tools; and 5) automated export procedures for seamless data downloads to common statistical packages (SPSS, SAS, STATA, R).

REDCap resides on servers within the Center for Advanced Technology and Education (CATE) (http://www.cate.fiu.edu) within the College of Engineering and Computing. This centrally-located data center features redundant, high availability infrastructure components, including more than 14 TB of SAN storage capacity, HP ProLiant DL380 G7 servers, VMWare Virtual Infrastructure Clusters and a system-wide Smart-UPS 3000VA Uninterrupted Power Supply. Full and incremental data backups are performed to our HP StorageWorks MSL2024 1 LTO-5 Ultrium 3000 FC Tape Library via the SAN; tapes are then stored in a locked safe within the CATE center.

Software engineers within CATE group perform software maintenance and upgrades under the direction of, and in concert with, the Director of Data Services. The Division of Information Technology Security Office (http://security.fiu.edu) provides Policies and Standards related to physical and technical security, contingency planning and incidence response that align with the University Compliance Office policies and procedures regarding Health Information Privacy (http://policies.fiu.edu/browse.php?l=university_area&t=1&letter=1435) and Security (http://policies.fiu.edu/browse.php?l=university_area&t=1&letter=1439).

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1 REDCap Consortium: http://www.project-redcap.org/.