Abstract

This paper reports on a research aimed at developing an electronic data collection and integration tool for heterogeneous data. The article reports on modeling of a generic tool for collecting e-Health data using relational database. It also explores a methodology of collecting Verbal Autopsy data using Mobile devices. The V-Model approach was deployed in developing the Dynamic Link Library. The document engineering approach was adopted to analyze both the property and conceptual model of the information context of the forms. The skipping pattern algorithm was developed and sixteen mapping controls were designed to handle any data format in the Dynamic link library. The model was prototyped using Verbal Autopsy forms. The model is found to be useful in collecting e-Health data using mobile devices. The design of the Dynamic Link Library was loosely coupled to allow adaptation to others digital data collection in biomedical field. In addition, sixteen control classes in the Dynamic Link Library were able to handle more than 250 variables in a Verbal Autopsy form.

References


M. Piasecki, et al., "Development of an Information System for the Hydrologic
The Integrated Model for e-Health Data Collection and Sharing under Distributed Environments in Tanzania...
The Integrated Model for e-Health Data Collection and Sharing under Distributed Environments in Tanzania


**Index Terms**

Computer Science   Distributed Systems

**Keywords**

e-Health  electronic data  data integration  data sharing  and health repository