Abstract

In medical imaging, Picture Archiving and Communication Systems (PACS) is a technology centered upon leveraging computers and data communication technologies to collect, store, process, retrieve and disperse medical imaging data to hospitals and affiliated clinics geographically spread across the world. PACS breaks down the physical and time barriers
Developing a Robust Multimedia Picture Archiving and Communication System (PACS) associated with traditional film-based image retrieval, distribution and display. With the identified limitations in the traditional filmed based radiology and the existing model of PACS, we came up with an improved model for PACS. The model was implemented using the visual studios and the assumption of our model was tested to verify the validity of implementation. To this end, structured questionnaires which were moderated by experts in the field of radiology and clinical medicine were distributed to survey the degree of the accuracy and acceptance of our implementation. This research work developed an improved model for PACS with the incorporation of new features into the existing model. Its objectives were achieved: implementing multimedia PACS; reduced transmission time and storage space requirements of radiological images. The work has contributed significantly in the field of radiology in that; PACS serves as a more convenient means of teaching students of radiology, it also reduces transmissions time requirement for referral cases and access time to images and radiological report over the network. It has also reduced the storage need of the medical images. It improves on the time of patient consultation; reduce stress associated with imaging and associated activities.

Reference


Index Terms

Computer Science

Communications

Key words

PACS

DICOM

MRI

CT

ARCHIVING

COMMUNICATION