Abstract

Revolution in information and communication technologies has transformed the information management structure in almost all the organizations. It has had a great impact on healthcare organizations by improving health services and management by integrating technology with the knowledge management infrastructure. The healthcare industry is a knowledge-based community and is connected to hospitals, physicians, patients, laboratories, pharmaceuticals, clinics, pharmacies, and customers for sharing knowledge. A knowledge-based healthcare industry can improve the quality of care and service given to its people and also reduces the administrative cost. The objective of this research is to present and describe the knowledge management capabilities, the technical infrastructure, and the decision support architecture for such a healthcare management system. It envisions a healthcare knowledge management
system (HKMS) that would help to integrate important components, disseminate knowledge to the respective users and to store historical data in a database. This will immensely help the managers and developers to identify their IT needs and to plan for and develop the technical infrastructure of the health care management system for their organizations.

References

  com/od/healthinsurancebasics/a/health_IT_overview.htm
  Ontological Framework for Developing Temporal-Fuzzy Database Model for Managing
  project: applying ontologies to the integration of medical terminologies, Data and Knowledge
  Engineering, 31(2), pp. 183-220.
  The WonderWeb Library of Foundational Ontologies and the DOLCE Ontology. Wonderweb
  Germany.
- Burney, A., Mahmood, N., and Abbas, Z. 2012. Advances in Fuzzy Rough Temporal
  Databases. In Proc 11th WSEAS International Conference on AIKED, University of Cambridge
  Relational Model for Managing, Patient Data. In Proc. Int. WSEAS conference AIKED,
- Hripcsak, G. 1994. Writing Arden Syntax Medical Logic Modules, In: Computers in
  Biology and Medicine, pp. 331-363.
- Deibel, R. A. Introduction to the InterMed Common Guideline Model and Guideline
  Interchange Format (GLIF). Brigham and Women’s Hospital. Harvard Medical School.
- Bashshur, R. L., Puskin, D., and Silva, J., eds. Second Invitational Consensus
  Conference on Telemedicine and the National Information Infrastructure: Augusta, Georgia,
- Burney, A., Mahmood, N., and Abbas, Z. 2010. Information and Communication
  of Computer Science.
  for Computer Applications in Radiology.
  to the Special Section on M-Health: Beyond Seamless Mobility and Global Wireless
  Health-Care Connectivity. IEEE Transactions on Information Technology in Biomedicine, 8(4),
  pp. 405-414.
  technology offers easy-to-use and cost-effective telemedicine services for rural and remote
areas, Journal of eHealth Technology and Application, 5(3), pp. 261-266

Index Terms

Computer Science
Information Systems

Keywords

Knowledge Management Healthcare Information System Decision Support System Management health ontology
telemedication