

題名:Medical Applications of Distributed Multimedia Database System
on the Internet

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上傳時間:2009-10-06T04:12:09Z

摘要:The system described in this paper uses the technological advances in information technology in order to influence and improve healthcare practice by enabling the flexible modelling, direct representation and adaptable use of medical knowledge. It aims at resolving a number of difficulties encountered by current information repositories, such as costly customization, reusability, high maintenance and poor information modelling, by employing the architecture of the functional data model (FDM), while maintaining full interoperability with existing systems by means of XML. On the information-modelling front the system supports a variety of modelling techniques that are especially relevant to medical applications, such as complex objects, incomplete or missing information, partially structured data and multimedia content. A prototype implementation of the system has been developed which consists of a multimedia-enhanced version of the functional database language FDL, and a web-based, two-way translator interface between the application~s native language and XML. This interface provides full interoperability with other, heterogeneous systems over the web, thus, significantly reducing the complexity of developing distributed healthcare systems and e-health applications.