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A SYSTEM TO KEEP TRACK OF MEDICAL EXPERTISE

(MEDIX)

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Specially dedicated to,

My Beloved Parents

DECLARATION

I declare that this dissertation is my own work and has not been submitted in any form for another degree or diploma at any university or other institute of tertiary education. Information derived from the published and unpublished work of others has been acknowledged in the text and a list of references is given.

Kasthuri Subaramaniam

May, 2000

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ABSTRACT

"As the society becomes increasingly dependent on computers, the demand for software system grow to be more complex than probably any other human artifact"

[Demirors et al., 1992]

This dissertation presents a system for keeping track of medical expertise as well as demonstrates the integration of different tools in a single application. MediX, a system to keep track of medical expertise, maintains the records of medical expertise, medical centres and specialties. MediX uses reporting, statistical, database, and authoring tools that are integrated in a programming package running under an operating system. MediX is a client/server-based system that has many significant features.

MediX provides the tools necessary to view existing information in new forms and combinations. These include generation of reports, charts and graphs as well as statistical computing, all in a single application. The health care administrators can present the results of calculations and information processing in clear, concise and meaningful formats. In addition, MediX assists users in their search for information by providing details of the medical expertise.

This study employs two modes of research activities comprising of survey questionnaires and interviews. These two methods were used to gather information pertaining to the project. The survey and interviews were conducted on the medical centres in Malaysia.

An evaluation of the usefulness of MediX to the medical community as well as to the general population was also undertaken. The results show that MediX is well accepted by all of them. Hence, MediX can make IT's contribution with respect to the quality of health care. In addition, MediX has proved that it is possible to integrate various tools in a single system.

In short, this study plays a crucial role in promoting the development of a health care information system and the integration of different tools.

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LIST OF ABBREVIATIONS

AAO	American Academy of Ophthalmology
AAOS	American Association of Orthopedic Surgeons
AAPM & R	American Academy of Physical Medicine & Rehabilitation
ADO	ActiveX Data Objects
AMA	American Medical Association
AuMA	Australian Medical Association
BMA	British Medical Association
COM	Component Object Model
DAO	Data Access Objects
DBMS	DataBase Management System
DLL	Dynamic Link Library
DOC	Doctors On Call
DSN	Data Source Name
E-R	Entity-Relationship
GH	Government Hospital
GP	General Practitioner
GUI	Graphical User Interface
IT	Information Technology
LAN	Local Area Network
MD	Doctors of Medicine
MMA	Malaysian Medical Association
ODBC	Open DataBase Connectivity

OLEDB	Object Link Embedding DataBase
OS	Operating System
PC	Private Clinic
PH	Private Hospital
PM&R	Physical Medicine & Rehabilitation
RAD	Rapid Application Development
RDO	Remote Data Objects
SMA	Singapore Medical Association
SNA	Systems Network Architecture
SPSS	Statistical Package for the Social Sciences
SQL	Structured Query Language
TCP/IP	Transmission Control Protocol/Internet Protocol
US	United States
VB	Visual Basic