

**Table 1: Proposed Medical Informatics Scientific Content Map**

Applied Technology	Information Technology Infrastructure	Data-Infrastructure Related	Applications and Products	Human-Organizational	Education and Knowledge
<ul style="list-style-type: none"> <li>Algorithms</li> <li>Bioinformatics</li> <li>Biosignal processing</li> <li>Boolean logic</li> <li>Cryptology</li> <li>Human genome related</li> <li>Human interfaces</li> <li>Image Processing</li> <li>Mathematical models in medicine</li> <li>Pattern recognition</li> </ul>	<ul style="list-style-type: none"> <li>Archival-repository systems for medical records- EPR-CPR-EMR</li> <li>Authentication</li> <li>Chip cards in health care</li> <li>Distributed systems</li> <li>Health professional workstation</li> <li>Interfaces</li> <li>Knowledge based systems</li> <li>Networks</li> <li>Neural networks</li> <li>Pen based</li> <li>Security</li> <li>Speech recognition</li> <li>Standards</li> <li>Systems architecture</li> <li>Telehealth</li> <li>User interfaces</li> </ul>	<ul style="list-style-type: none"> <li>Classification</li> <li>Coding systems</li> <li>Concept representation-preservation</li> <li>Data acquisition- data capture</li> <li>Data analysis-extraction tools</li> <li>Data entry</li> <li>Data policies</li> <li>Data protection</li> <li>Database design</li> <li>Indexing</li> <li>Syntax</li> <li>Language representation</li> <li>Lexicons</li> <li>Linguistics</li> <li>Modeling</li> <li>Nomenclatures</li> <li>Standards</li> <li>Terminology-vocabulary</li> <li>Thesaurus tools</li> </ul>	<ul style="list-style-type: none"> <li>Biostatistics</li> <li>Clinical trials</li> <li>Computer-supported surgery</li> <li>Decision support</li> <li>Diagnosis related</li> <li>Disease mgt.</li> <li>EPR-CPR-EMR</li> <li>Epidemiological research Hospital IS</li> <li>Event-based systems</li> <li>Evidence based guidelines</li> <li>Expert systems</li> <li>Health services research</li> <li>HIS management</li> <li>Knowledge-based systems</li> <li>Laboratory data</li> <li>Image processing</li> <li>Operations/Resource management</li> <li>Outcomes research and measurement</li> <li>Quality management</li> <li>Patient identification</li> <li>Patient monitoring</li> <li>Minimum Data Sets</li> <li>Supply chain</li> <li>Telematics</li> <li>Telemedicine</li> </ul>	<ul style="list-style-type: none"> <li>Assessment</li> <li>Compliance</li> <li>Cognitive tasks</li> <li>Collaboration</li> <li>Communication</li> <li>Economics of IT</li> <li>Ethics</li> <li>Implementation-deployment</li> <li>Diffusion of IT</li> <li>Evaluation</li> <li>Human Factors</li> <li>Legal issues, implementing national laws</li> <li>Management</li> <li>Managing Change</li> <li>Needs assessment</li> <li>Organizational redesign processes</li> <li>Organizational transformation</li> <li>Planning</li> <li>Policy Issues</li> <li>Privacy</li> <li>Project Management</li> <li>Security</li> <li>Strategic plans</li> <li>Unique identifiers</li> <li>User-computer interface</li> </ul>	<ul style="list-style-type: none"> <li>Bibliographic</li> <li>Cognitive learning</li> <li>Computer aided instruction</li> <li>Computer-supported training</li> <li>Consumer education</li> <li>Continuing education</li> <li>Digital Libraries</li> <li>E-Business</li> <li>H/MI education</li> <li>Information management-dissemination</li> <li>Knowledge bases</li> <li>Knowledge management</li> <li>Learning models</li> <li>Online/distance education</li> </ul>
<p><b>Clinical Disciplines:</b> Anesthesia, Behavioral, Cardio/Thoracic, Cardiovascular, Dentistry, Dermatology, Emergency Medicine, Environmental health, Gastroenterology, Human genetics, Internal Medicine, Neurosurgery, Nursing, Obstetrics &amp; Gynecology, Ophthalmology, Orthopedics, Pathology, Pediatrics, Pharmacy, Primary care, Psychiatry, Radiology, Surgery, Urology</p>					

**Table 2: World-wide Informatics Association's Working Groups**

Infrastructure/Technical/Research	Standards & Representation	Applications & Products	Education and Human Related Issues
<ul style="list-style-type: none"> <li>Data Protection and Security (EFMI)—Francois Allaert</li> <li>Data Protection in Health Information Systems (IMIA)— Ab Bakker</li> <li>Intelligent Data Analysis and Data Mining (IMIA)— Riccardo Bellazzi, Blaz Zupan</li> <li>Biomedical Pattern Recognition (IMIA)— Christoph Zywietz</li> <li>Biomedical Statistics and Information Processing (IMIA)— Jana Zvarova, Leon Bobrowski</li> <li>Genomics (AMIA)—John McCarthy</li> </ul>	<ul style="list-style-type: none"> <li>Standards in Health Telematics (EFMI)</li> <li>Natural Language understanding (EFMI)—Robert Baud</li> <li>Medical Concept Representation (IMIA)— Christopher G. Chute</li> <li>Standards in Health Care Informatics (IMIA)—Open</li> <li>Natural Language Processing (AMIA)— Stephen B. Johnson</li> </ul>	<ul style="list-style-type: none"> <li>Clinical Information Systems (AMIA)—Richard Gibson</li> <li>Clinical Trials (AMIA)—Joyce Niland</li> <li>Computerized Patient Records (IMIA)— Johan van der Lei, Mark Musen</li> <li>Health Information Systems (IMIA)— Klaus Kuhn, Dario Giuse</li> <li>MDBS, Case Mix and severity of cases (EFMI)— Francis Roger-France</li> <li>Telematics in Healthcare (IMIA)— Regis Beuscart</li> <li>Information Planning and Modelling in Health Care(EFMI)—Brian Manning</li> <li>Internet (AMIA)—Bradford J. Richmond</li> <li>Telehealth (AMIA)—Luis G. Kun, PhD</li> </ul>	<ul style="list-style-type: none"> <li>Consumer Health Informatics (IMIA)— Alejandro Jadad, Betty L. Chang, Gunther Eysenbach</li> <li>Consumer Health Informatics (AMIA)— Betty L. Chang</li> <li>Education in Health Informatics (EFMI)— Arie Hasman</li> <li>Education (AMIA)—Paul N. Gorman</li> <li>Ethical, Legal, and Social Issues (AMIA)—Peter Winkelstein</li> <li>Health and Medical Informatics Education (IMIA)— Evelyn Hovenga, John Mantas</li> <li>Human and organisational issues in medical informatics (EFM)— Jos Aarts</li> <li>Organizational and Social Issues (IMIA)— Bonnie Kaplan</li> <li>People &amp; Organizational Issues (AMIA)—Cynthia Gadd and Annette L. Valenta</li> <li>Prevention and Public Health AMIA)— Jeff Luck</li> <li>Quality Improvement (AMIA)—E. Andrew Balas</li> <li>Technology Assessment &amp; Quality Development (IMIA)— Jan Talmon</li> </ul>
<b>Developing Countries—Need Content From all of the Above Topics</b>			
<ul style="list-style-type: none"> <li>Health, Informatics and Development (EFMI)— George I. Mihalas</li> </ul>		<ul style="list-style-type: none"> <li>Health Informatics for Development (IMIA)— Nora Oliveri</li> </ul>	
<b>Clinical Based Discipline Working Groups that Cross all of the Above</b>			
<ul style="list-style-type: none"> <li>Anesthesiology/Critical Care and Emergency Medicine (AMIA)—Vasu Brown</li> <li>Dental Informatics (AMIA)—Heiko Spallek</li> <li>Dental Informatics (IMIA)— Wook-Sung Yoo, John Eisner</li> <li>Mental Health (IMIA)— Michael Rigby, Ann Sheridan</li> <li>Nursing Informatics (AMIA)—Patricia S. Button</li> </ul>		<ul style="list-style-type: none"> <li>Nursing Informatics in Europe (EFMI)—Patrick Weber</li> <li>Nursing Informatics (IMIA)— Virginia K. Saba, Heather Strachan</li> <li>Primary Care Informatics (AMIA)—John A. Zapp</li> <li>Primary Care Informatics (EFMI)— Nicolas Robinson</li> <li>Primary Health Care Informatics (IMIA)— Michael Kidd, H.C. Mullins</li> </ul>	
<b>Student Working Group (AMIA)—Christoph Lehmann</b>			