

AMIA 2014 Classification Scheme

FOUNDATIONS -- Axis I

I.A. INFORMATION AND KNOWLEDGE REPRESENTATION

Controlled terminologies, ontologies and vocabularies
Knowledge bases and data models
Knowledge representation, acquisition, and management

I.B. INFORMATION AND KNOWLEDGE PROCESSING

Cryptography, anonymization, and other methods for security and policy enforcement
Data mining
Identifying, representing, or modeling genomic data
Human-computer interaction and human-centered computing
Image representation, processing, analysis, and display
Information (text and image) storage, representation, processing and retrieval
Intelligent tutoring and tailored information representation
Methods for integration of information from disparate sources
Modeling physiologic and disease processes
Natural language processing and Text Mining
Networking methods
Simulation of complex systems
Social Media and mobile technology (mHealth)
Statistical analysis of large datasets (including big data)
Temporal and Spatial Reasoning
Uncertain reasoning and decision theory
Visualization of data, information and knowledge

I.C. EMPIRICAL RESEARCH AND EVALUATION METHODOLOGY

Cognitive study (including experiments emphasizing verbal protocol analysis and usability)
Classical experimental and quasi-experimental study methods (lab and field)
Legal, policy, historical, ethical study methods
Qualitative/ethnographic field study
Social/organizational study (people and organizational issues)
Surveys and needs analysis

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APPLICATIONS -- Axis II

II A. INFORMATION AND KNOWLEDGE RETRIEVAL

Digital multi-media/ Image libraries
Health Information and biomedical literature: applications for providing just-in-time access
Integration of biomedical information from diverse sources (includes automated indexing)

II B. INFORMATION AND KNOWLEDGE PROCESSING

Clinical data standards, interoperability and health information exchange
Clinical decision support and guideline systems
Diagnostic systems
Security and privacy of information systems
Surveillance and monitoring systems (includes outbreak detection as well as ubiquitous sensors)
Workflow and process evaluation

II C. INFORMATION AND KNOWLEDGE PRESENTATION

Delivering health information and knowledge to the public
EHR applications (results review, medication administration, disease progression, and image management)
Healthcare quality and safety
Implementation, management and evaluation of information systems
Mobile health (mHealth), social media and telemedicine
Outcomes measurement for specific conditions and patient subgroups
Usability testing and human computer interaction

II D. ADDITIONAL INFORMATICS APPLICATIONS

Clinical research applications
Consumer health informatics (includes personal health records and self-care systems)
Education and training
Global health informatics/informatics in resource-poor settings
Legal, ethical, and regulatory issues
Public health and population health: applications that support
Translational informatics - applications that support translation of biological knowledge to clinical care