### Contents

**President’s Statement**

R. Haux  
*IMA and its Members: On Balancing Continuity and Transition in Biomedical and Health Informatics*  
1

**Obituary**

R. Haux, N. M. Lorenzi, K.C. Lun, O. Rienhoff, J. H. van Bemmel  
*In Memoriam Steven A. Huesing (1944 - 2009)*  
7

**Medinfo Announcement**

L. Hanmer  
*MEDINFO 2010 - 13th World Congress on Medical and Health Informatics*  
13

**Editorial**

A. Geissbuhler, C. A. Kolikowski  
*Closing the Loops in Biomedical Informatics*  
15

**Keynote**

R. M. Gardner  
*Clinical Decision Support Systems: The Fascination with Closed-Loop Control*  
17

**IMA White Paper**

J. Talmon, E. Ammenwerth, J. Brender, N. de Keizer, P. Nykänen, M. Rigby  
*STARE-HI - Statement on Reporting of Evaluation Studies in Health Informatics*  
23

### Special Section: Closing the Loops in Biomedical Informatics

#### Survey

B. Bergh  
*“In the same Boat” – Considerations on the Partnership between Healthcare Providers and Manufacturers of Health IT Products and Medical Devices*  
33

#### Synopsis

A. Gaudinat  
*Closing the Loops in Biomedical Informatics - From Theory to Daily Practice*  
37

#### Best paper selection

  *HIS Modelling and Simulation Based Cost-benefit Analysis of a Telemedical System for Closed-loop Diabetes Therapy.*  
  *Int J Med Inform 2007 Dec;76 Suppl 3:S447-55*

  *Simultaneous Trend Analysis for Evaluating Outcomes in Patient-centred Health Monitoring Services.*  
  *Health Care Manag Sci 2008 Jun;11(2):152-66*

- Mottaz A, Yip YL, Ruch P, Veuthey AL.  
  *Mapping Proteins to Disease Terminologies: From UniProt to MeSH.*  
  *BMC Bioinformatics 2008 Apr 29;9 Suppl 5:S3*

- Stead WW, Patel NR, Stormer JM.  
  *Closing the Loop in Practice to Assure the Desired Performance.*  
  *Trans Am Clin Climatol Assoc 2008;119:185-94; discussion 194-5*

- Tehrani FT, Roum JH.  
  *Intelligent Decision Support Systems for Mechanical Ventilation.*  
  *Artif Intell Med 2008 Nov;44(3):171-82*

### Section 1: Health and Clinical Management

#### Survey

Y.-C. Li, P. S. Lee, W. S. Jian  
*Electronic Health Record Goes Personal World-Wide*  
40

#### Synopsis

D. Kubias  
*Health and Clinical Management - From Patient Care to National Public Health*  
44

---

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)
Section 2: Human Factors and Organizational Issues

Survey

Current Challenges and Opportunities for Better Integration of Human Factors Research with Development of Clinical Information Systems

Synopsis

R. Meyer
A Bio-medical Informatics Perspective on Human Factors. Understanding Human Factors Influence in HIT-enabled Institutions

Best paper selection

Content summaries of*

Meystre SM, Haug PJ. Randomized Controlled Trial of an Automated Problem List with Improved Sensitivity. Int J Med Inform 2008 Sep;77(9):602-12


Section 3: Health Information Systems

Survey

R. Lenz
Information Systems in Health Care - State and Steps towards Sustainability

Synopsis

C. Bréant
Health Information Systems. New Shifts and Emerging Trends in Health IT Infrastructures

Best paper selection

Content summaries of*

Meystre SM, Haug PJ. Randomized Controlled Trial of an Automated Problem List with Improved Sensitivity. Int J Med Inform 2008 Sep;77(9):602-12


* The complete papers can be accessed in the Yearbook's full electronic version, provided that permission has been granted by the copyright holder(s)
Best paper selection

Content summaries of*:


83

Section 4: Sensor, Signal and Imaging Informatics

Survey
M. Tschopp, C. Lovis
Towards Clinically Available Closed-loop Systems for Mechanical Ventilation in the Intensive Care Unit

Synopsis
A. Depeursinge, H. Müller
Sensors, Medical Images and Signal Processing: Exploring Multi-Dimensional Medical Imaging Data

97

Best paper selection

Content summaries of*:

Dam EB, Fletcher PT, Pizer SM. Automatic Shape Model Building Based on Principal Geodesic Analysis Bootstrapping. Med Image Anal 2008 Apr;12(2):136-51


Section 5: Decision Support

Survey
E. Coiera, A. Y. S. Lau, G. Tsafnat, V. Sintchenko, F. Magrabi

Synopsis
P. Ruch
A Medical Informatics Perspective on Decision Support

96

Best paper selection

Content summaries of*:


97

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)
Section 6: Knowledge Representation and Management

Synopsis

A.-M. Rassinoux
Knowledge Representation and Management: Towards Interoperable Medical Terminologies

Content summaries of*:


* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)
Section 8: Bioinformatics

Survey

I. S. Kohane
Ten Thousand Views of Bioinformatics: A Bibliome Perspective
113

Synopsis

Y. L. Yip
Accelerating Knowledge Discovery through Community Data Sharing and Integration
117

Best paper selection

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)

Reviews

Clinical Data Mining: a Review
121

F. Martin-Sanchez, V. Moojo
Biomedical Informatics and the Convergence of Nano-Bio-Info-Cogno (NBIC) Technologies
134

A. Geissbuhler, R. Haux, C.A. Kulikowski
From Ambient Assisted Living to Global Information Management: IMIA-Referencing Publications in 2008
143

Research & Education

F. G. Bernaldo de Quiros, D. Luna, P. Otero, A. Baum, D. Borbolla
Experience in the Development of an In-house Health Information System and the Training Needs of the Human Resources at the Hospital Italiano de Buenos Aires
147

A Margolis, A Vero, L Bessonart, A Barbiel, M Ferla
Health Information Systems Training for a Countrywide Implementation in Uruguay
153

P. J. Murray, H. J. Betts, G. Wright, N. V. Mashiya
Health Informatics Education and Capacity Building in Eastern Cape Province, South Africa
158

C. Safran
Informatics Training for Clinicians is More Important than Hardware and Software
164

* The complete papers can be accessed in the Yearbook’s full electronic version, provided that permission has been granted by the copyright holder(s)