

## Towards Health Informatics 3.0. Editorial

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### Summary

**Objectives:** To provide an editorial introduction to the 2011 IMIA Yearbook of Medical Informatics with an overview of its contents and contributors.

**Methods:** A brief overview of the main theme, and an outline of the purposes, contents, format, and acknowledgment of contributions for the 2011 IMIA Yearbook.

**Results:** This 2011 issue of the IMIA Yearbook highlights important developments in the development of Web 3.0 capabilities that are increasing in Health Informatics, impacting the activities in research, education and practice in this interdisciplinary field. There has been steady progress towards introducing semantics into informatics systems through more sophisticated representations of knowledge in their underlying information. Health Informatics 3.0 capabilities are identified from the recent literature, illustrated by selected papers published during the past 12 months, and articles reported by IMIA Working Groups.

**Conclusion:** Surveys of the main research sub-fields in biomedical informatics in the Yearbook provide an overview of progress and current challenges across the spectrum of the discipline, focusing on Web 3.0 challenges and opportunities.

### Keywords

Editorial, 2011 IMIA Yearbook of Medical Informatics, Health Informatics 3.0, surveys of biomedical informatics, history of biomedical informatics, IMIA and its societies

Yearb Med Inform 2011;6-7

### Introducing the 2011 Yearbook and its Theme on Health Informatics 3.0

The Yearbook includes a number of articles focusing on the theme of Health Informatics 3.0. It covers recent informatics contributions and points to future directions on how the gradual incorporation of semantic capabilities is enabling both more effective software inter-connectivity and more seamless, consistent ways of communication and collaboration among researchers and practitioners in Health Informatics over the web. The importance of this theme comes from the critical need to improve usability as well as portability of software, data, and methods for biomedical research, practice, and education. Increasing the effectiveness and dissemination of health informatics methods worldwide is a major goal of IMIA, and Web 3.0 approaches are increasingly central to its achievement. The Yearbook also reports on the successful World Congress of Medical Informatics (Medinfo 2010), held in Capetown, South Africa on September 13 of last year. This achievement emphasizes the increasing global reach and impact of health informatics, being the first Medinfo held in Africa. Its theme of Building Capacity Worldwide is especially relevant to help introduce advanced methods of informatics in regions where there are challenging health needs.

The 2011 IMIA Yearbook includes the following articles:

Keynote on the Theme of Health Informatics 3.0 - Dipak Kalra

Editorial, IMIA President Statement and IMIA Award Statement at Medinfo 2010.

Synopses and summaries of Best Paper Selections in each of the subfields of biomedical informatics.

Surveys in selected subfields of health informatics:

- Cheick Oumar Bagayoko (Health and Clinical Management)
- Petra Wilson (Sensors, Signals and Imaging Informatics)
- Majid Altuwajjri (Consumer Informatics)
- Constantin Aliferis (Bioinformatics)

Working Group Articles:

- Thomas Karopka (WG Open Source Health Informatics)
- Chris Paton (WG Social Media)
- Alvin Marcelo (WG Health Informatics for Development)
- Paula Otero (WG Health and Medical Informatics Education)
- Michael Rigby (WG Technology Assessment & Quality Development in Health Informatics)
- Anthony Maeder (WG Telehealth)
- Annie Lau (WG Consumer Health Informatics)
- Simon de Lusignan (WG Primary Health Care Informatics)
- Simon de Lusignan (WG Primary Health Care Informatics)
- Christian Lovis (WG Health Information Systems)

Research and Education:

- Rada Hussein: Biomedical and Health Informatics Education and Research at the Information Technology Institute in Egypt

History of Medical Informatics:

- Hans Petersen: Documenting the Use of Computers in Swedish Health Care up to 1980
- Jan van Bommel: People and Ideas

in Medical Informatics – a half century review

IMIA Award paper:

- Marion Ball: Back to the Future: What Have We Failed to Learn? How Does the Future Look?

Obituaries of International Leaders in Medical Informatics:

- Past President, IMIA - Professor Shigekoto Kaihara (Japan)
- Past President, Korean Institute of Medical Informatics (KOSMI) – Dr. Yun Sik Kwak (Korea)
- Co-Founder, European Society for Artificial Intelligence in Medicine, Professor Mario Stefanelli (Italy)

Report on the World Congress of Medical Informatics (Medinfo 2010) by Lyn Hanmer.

## About the Yearbook of Medical Informatics

The Yearbook of Medical Informatics of the International Medical Informatics Association (IMIA) is distributed through IMIA's Member and Corresponding Member Societies worldwide. Since its inception in 1992 it has been the single most important publication summarizing the activities of IMIA, and showcasing the best of medical informatics research for the previous year. Due to changing demands by its readership and the expanded availability of original papers over the web, the IMIA Yearbook of Medical Informatics has adopted a new format and mode of publication since 2006, with the goal of substantially broadening its availability to virtually all members of the IMIA family. In particular, surveys, giving overviews of recent developments, and comprehensive introductory reviews on relevant topics in the different fields of health and biomedical informatics, have been added as original articles. The Yearbook remains a non-profit publication of IMIA, jointly published with Schattauer Verlag. It is currently subscribed to by 23 of IMIA's member societies, providing access for about 20.000 individual members.

## Information on IMIA and on its Regional Groups

This past year IMIA successfully held its triennial conference MEDINFO, which, for the first time took place in Africa, in Cape Town in September 2010.

The Yearbook contains detailed information about IMIA, its Member Societies, Regional Groups, Working Groups, and Special Interest Groups.

A detailed report on the activities of IMIA regions is included with the help of Regional Editors. We would like to thank Rolf Engelbrecht (for EFMI), Michio Kimura (for APAMI), Ghislain Kouematchoua (for HELINA), Carol Hullin (for IMIA LAC), Ramin Moghaddam (for MEAHI) and Karen Greenwood and RoseMary MacVicar-Elliott (for the North American IMIA Member Societies) for their valuable contributions.

## Acknowledgements

The editors gratefully acknowledge the contributions of the referees and guest editors. They would also like to thank the authors of the invited surveys, reviews and the historical paper, and the contributors to the Research and Education Section. They are most appreciative of the considerable skill, time, and effort devoted by Christian Lovis, the Managing Editor, and by the Section Editors, Claudine Bréant, Célia Boyer, Adrien Depeursinge, Arnaud Gaudinat, Alberto Guardia, Daniel Kubias, Rodolphe Meyer, Henning Müller, Anne-Marie Rassinoux, Patrick Ruch, and Lina Yip. They especially wish to thank the Editorial Assistant, Martina Hutter, from the Medical Faculty at the University of Heidelberg, without whose untiring efforts the Yearbook would not have been completed. The editors appreciate the contributions of the Advisory Board to the planning of this Yearbook. They are Reinhold Haux, Fernando Martin-Sanchez, Georges Mihalas, and Peter Murray.

The referees who contributed to the selection of articles in the 2011 Yearbook of Medical Informatics were:

Ameen Abu-Hanna, The Netherlands  
 Kouhei Akazawa, Japan  
 Fernan Gonzalez Bernaldo de Quiros, Argentina  
 Olivier Bodenreider, USA  
 Alex A.T. Bui, USA  
 Thomas Bürkle, Germany  
 Karen Courtney, USA  
 Dina Demner Fushman, USA  
 John T. Donnelly, USA  
 David Dorr, USA  
 Georg Duftschnid, Austria  
 Martin Dugas, Germany  
 HM Goh, Malaysia  
 Natalia Grabar, France  
 Stefan Gräber, Germany  
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 Allan Hanbury, Austria  
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 Dimitar Hristovski, Slovenia  
 Josef Ingenerf, Germany  
 Jayashree, Kalpathy-Cramer, USA  
 Jeongeun Kim, Korea  
 Mikko Korpela, Finland  
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 Pablo Laguna, Spain  
 Luigi Lo Iacono, Germany  
 Daniel Luna, Argentina  
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 Maryati Mohd Yusof, Malaysia  
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 Dimitri van de Ville, Switzerland  
 Ulrike Wittig, Germany  
 Toru Yao, Japan