

# Health Informatics: Building Capacity Worldwide. Editorial

C. A. Kulikowski<sup>1</sup>, Antoine Geissbuhler<sup>2</sup>

<sup>1</sup>Department of Computer Science, Rutgers-The State University of New Jersey, New Brunswick, NJ, USA

<sup>2</sup>Department of Imaging and Medical Informatics, Geneva University Hospitals, Geneva

## Summary

**Objectives:** To provide an editorial introduction to the 2010 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 2010 IMIA Yearbook.

**Results:** This 2010 issue of the IMIA Yearbook highlights important developments in the building of workforce capacity in medical informatics worldwide, covering activities in research, education and practice in this interdisciplinary field. Progress towards educating and keeping professionals in the field up-to-date is complemented by outreach to the wide range of disciplines and biomedical and health specialties that are covered by this very broad field, identified from the recent literature, illustrated by selected papers published during the past 12 months.

**Conclusion:** Reviews and 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.

## Keywords

Editorial, 2010 IMIA Yearbook of Medical Informatics, surveys of biomedical informatics, reviews of biomedical informatics, history of biomedical informatics, IMIA and its societies

Yearb Med Inform 2010;6-7

## Introducing the 2010 Yearbook and its Theme on Building Capacity Worldwide

The Yearbook includes a number of articles focused on the theme of Health Informatics: Building Capacity Worldwide, covering present and past informatics contributions as well as future directions on how the field is addressing challenging problems of preparing professionals, researchers, and educators to deal with the increasing complexity of biomedical and health informatics in the 21<sup>st</sup> Century. The motivation behind the theme is that we need to be educating, preparing and training more competent professionals across the globe in all areas covering the breadth of domains of our multi- and inter-disciplinary field. The essential role that biomedical informatics plays in the foundations of healthcare, follows from the increasing effectiveness and dissemination of informatics-enabled solutions. Today, considerable new challenges arise with attempts to scale-up activities in biomedical informatics both within countries and region. It is the role of IMIA to provide a global perspective that balances the needs of developed and developing regions of the world in bringing the latest advances in biomedical and health informatics to an increasingly wider community of interest. The purpose of this 2010 Yearbook of Medical Informatics to survey the progress achieved in our field over the past year, with its publication designed to coincide with the opening of the 2010 World Congress of Medical Informatics in Capetown, South Africa on September 13, emphasizing both

the maturity and widespread impact of our discipline. The theme of Building Capacity Worldwide is especially relevant to help in achieving the high expectations of excellence in research in our field, that, combined with the diversity, breadth, and effectiveness of practical systems for healthcare, is what drives us forward internationally.

Major papers that comprise this 2010 IMIA Yearbook include:

### Surveys:

- Chris Seegbrets (HF): Human Factors for Capacity Building
- Alvin Marcelo (HIS): Health Information Systems: Frameworks for Developing Countries
- Dan Rubin (SSII): Imaging Informatics: Toward Capturing and Processing Semantic Information in Radiology Images
- Georges Bediang (DS): Medical Decision Support Systems in Africa
- Chris Chute (KRM): Distributed Biomedical Terminology Development: From experiments to open process
- Heimar Marin (ECI): Nursing Informatics Education in the South: a Brazilian Experience
- Elke Lang (Bio): In Cereo and in Silico: Tissue Microarray (TMA) Techniques and Bioinformatics are Thriving Forces in Medical Science and Personalized Medicine

### Reviews:

- Maurice Mars: Health Capacity Development Through Telemedicine in Africa
- Pradeep Ray: mHealth-an Ultimate Platform to Serve the Unserved

### Research & Education:

- Luo Shuqian, Zhang Kun and Li Baoluo (China): Medical Informatics in China: Healthcare IT

trends, Academic and Research Developments

- Shashi Bhushan Gogia (India): An Overview of Education and Training of Medical Informatics in India
- Francis Roger France (Belgium): Board Certified Physicians in Health Informatics. A European Precedent for Professional Recognition
- Don Detmer: Capacity Building in e-Health and Health Informatics: A Review of the Global Vision and Informatics Educational Initiatives of the American Medical Informatics Association

History of MI: Randy Miller: A History of the INTERNIST-1 and Quick Medical Reference (QMR) Computer-Assisted Diagnosis Projects, with Lessons Learned.

## About the IMIA 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

The central challenge facing IMIA this year has been the preparations for its triennial conference MEDINFO, which will take place for the first time in Africa, in Cape Town in 2010.

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

The section on IMIA Working Groups and Special Interest Groups was organized by Hyeoun-Ae Park. 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), Alvaro Margolis (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 2010 Yearbook of Medical Informatics were:

Jos Aarts, The Netherlands  
 Ameen Abu-Hanna, The Netherlands  
 Kouhei Akazawa, Japan  
 Sameer Antani, USA  
 Fernan Gonzalez Bernaldo de Quiros, Argentina  
 Olivier Bodenreider, USA  
 Alex A.T. Bui, USA  
 Yu Cao, USA  
 Karen Courtney, USA  
 Dina Demner Fushman, USA  
 Georg Duftschmid, Austria  
 Martin Dugas, Germany  
 John Glaser, USA  
 Natalia Grabar, France  
 Stefan Gräber, Germany  
 Ghassan Hamarneh, Canada  
 Heinz Handels, Germany  
 Dimitar Hristovski, Slovenia  
 Katharina Kaiser, Austria  
 Theodore Kalamoukis, Greece  
 Jayashree, Kalpathy-Cramer, USA  
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 Pablo Laguna, Spain  
 Andy H. Lee, Australia  
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 Stéphane Meystre, USA  
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 Maryati Mohd Yusof, Malaysia  
 Jeannette Murphy, UK  
 Toshiharu Nakai, Japan  
 Michael Poprat, Germany  
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 Dietrich Rebholz-Schuhmann, UK  
 Rainer Röhrig, Germany  
 Indra Neil Sarkar, USA  
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 Manolis Tsiknakis, Greece  
 Frank Ückert, Germany  
 Devrim Ünay, Turkey  
 Mauno Vihinen, Finland  
 Ulrike Wittig, Germany  
 Toru Yao, Japan  
 Tatjana Zrimec, Australia