

# IMIA's Publication History

H. E. Peterson<sup>1</sup>, M. Hutter<sup>2</sup>

<sup>1</sup> Bromma, Sweden

<sup>2</sup> Heidelberg University Hospital, Center for Information and Medical Technology, Heidelberg, Germany

## Summary

**Objectives:** This article lines out the various publications by which IMIA presents its work and the state-of-the-art of health and biomedical informatics.

**Method:** A short history of IMIA and its publications is presented, a reference list completes the view.

**Results:** IMIA looks back on a long and fruitful publication history of more than a hundred publications.

**Conclusion:** Starting from its foundation in 1967, IMIA has continually published the results of its activities and conferences, these publications being one of the most visible proofs of the liveliness and up-to-dateness of the organization and the field.

## Keywords

History of Medical Informatics, IMIA publications, International Medical Informatics Association, IMIA

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IMIA started as the Technical Committee number 4, Medicine, (TC 4) of the International Federation of Information Processing (IFIP) in 1967 and had that status until 1980 [1],[2]. IMIA has therefore inherited a number of patterns how to organize the work.

IFIP was founded in 1960 and held its first Congress in 1962 in Munich and the second one 1965 in New York and thereafter every third year. One Congress was organized by UNESCO in 1959 and sometimes this Congress is also included as one IFIP Congress.

At the IFIP Congress in Stockholm in 1974, TC 4 was for the first time allowed to organize a parallel Congress called Medinfo in the same premises. The next two Medinfo Congresses were also held in parallel with the IFIP Congress but not in the same premises.

IMIA got independent from IFIP in 1980. All following Medinfo's have been held separately and IMIA has continued with Medinfo Congresses every three years and the Proceedings from these have been published [3]. Also the organizing of the important IMIA Working Conferences has followed the pattern introduced by IFIP.

Already in the first version of the IFIP Publications Policy it is stated that the Proceedings from Working Conferences arranged by a TC had to be published as a "service to the Information Processing Society and as a documentation of the work done and the proceedings should be published by North-Holland" [4]. This has later been changed and the organizers can choose the publisher.

Already in the first By-laws written for the TC 4 it was stated that education and dissemination of information were important and the first Working Group of TC 4 was dedicated to education.

When IMIA got independent in 1980 and the first version of its statutes was written, these principles were included. In the present version of IMIA statutes it is stated that the basic aims of IMIA shall be:

- „to promote informatics in health care and biomedical research
- to advance international cooperation
- to simulate research, development and routine application
- to move informatics from theory into practice in a full range of settings, from physician's office to acute and long term care
- to further the dissemination and exchange of knowledge, information and technology."

The best way to fulfil these aims was to publish what IMIA was doing and this has been done in three ways [5]:

The IMIA Working Conference Proceedings, the Medinfo Proceedings [6] and since 1992 the IMIA Yearbooks. In addition, a considerable number of publications have been issued about IMIA's activities in various fields, especially education, see for example [7-9].

## The IMIA Working Conferences

The first TC 4 Working Conference was held and the proceedings published in 1970. Altogether there were 11 Working Conference Proceedings published in the TC 4 series.

From 1980 until today there have been more than 70 conference proceedings published in the IMIA series (see [16] - [102]).

In order to organize an IMIA Working Conference a small group of interested persons has to ask for permission by the IMIA board and propose the topic, a budget and ask the national representatives to nominate experts in that field in their countries to participate. Among the experts proposed the organizers had to accept the experts they wanted to participate. Usually not more than 30 experts were invited and they all had to present their projects. Sometimes a limited number of participants were also invited. IMIA Board could accept to give a loan or a grant of not more than 5000 CHF. The organizers had to report back to the IMIA Board and ask for permission to publish the Proceedings.

These Proceedings were of great value because they summarized the state of the art and rather often the manufacturers for the first time released new products at these conferences.

Some topics have been addressed several times for example education, hospital information systems, security, ECG analysis, nursing informatics and communication.

From a historical point of view the proceedings tell in detail what was going on and describes all the important projects that were going on at that time which in most cases are of great value when a new project is started. When the IMIA history once in the future will be written these proceedings will be one of the best sources.

## The Medinfo Proceedings

There are today (2007) 11 Medinfo Proceedings available [103-113]. They represent another side of IMIA activi-

ties because of the way the papers are selected. There is a call for papers and a Scientific Program Committee selects the best papers for presentation, or to be presented as a poster, at the Medinfo Congress. Therefore the papers represent what is going on for the moment within different application areas of Health Informatics.

In a foreword to the 1986 IMIA Yearbook van Bommel and Shortliffe [10], see also [11, 12] tried to describe the evolutionary directions in medical informatics by clustering all papers presented at the first 5 Medinfo's in six main categories. These categories were: communication and registration, data bases and information systems, process automation and analysis, medical decision making, therapy, medical research and education. The contributions were also divided in five main areas from which part of the world they came, namely the North American continent, Western Europe, Socialist Countries, South East Asia and other countries. Scholes, Tallberg and Pluyter-Wenting [13] have used the same clustering and methodology but extended the number of categories to 10 by adding: medical records, language and classification, data protection and nursing. They have used material from 9 Medinfo Congresses (1974 - 98), 6 IMIA Nursing Informatics Congresses (1982 - 97) and 15 MIE (Medical Informatics Europe) Congresses (1978 - 99) and made an impressive graphical display of the material.

## The IMIA Yearbook

The IMIA Yearbook [14] is a publication that presents IMIA and its fields of interest by various ways: It includes original articles about recent developments and comprehensive reviews on

relevant topics of health and biomedical informatics as well as articles about research and education programs in health and bio-medical informatics worldwide. It also contains papers selected from peer-reviewed journals of the previous year covering the areas of Health and Clinical Management, Patient Records, Health Information Systems, Sensor, Signal and Imaging Informatics, Decision Support, Knowledge Representation and Management, Education and Consumer Informatics, Bioinformatics, and a Special Topic which is chosen every year as an overall theme of the Yearbook. Finally, the Yearbook also contains a section presenting IMIA with its working groups and special interest groups, its members and its regional groups.

The selection of "best" papers of the previous year is carried out as follows: The criteria for selection include: significance, originality, representativeness and coverage of research in a given sub-field of health informatics, presented at a high quality level. A more detailed description of these quality criteria can be found at <http://iig.umat.at/yearbook>. The overall selection is made by the editors with the advice of the ca. eight managing editors from each of the specialty areas. During this selection process, the managing editors first identify medical informatics papers published during the period in question and listed in MEDLINE. The managing editors also select high quality papers by searching the most relevant journals of the field. In addition, papers can also be suggested for inclusion by IMIA members. The number of papers considered is close to 20,000, from which those with the most impact on the field are pre-selected for peer-review. Each of the pre-selected papers (about 150 each year) is then reviewed by two external international reviewers, by the two editors of the

Yearbook, and by the responsible managing editor. This is done by using a standardized evaluation form to score and rank the papers. Based on these five reviews, about 40 to 50 of the most outstanding papers are then finally selected for synopsis in the Yearbook [15].

15 Yearbooks have been published since 1992 [114-128]. In order to broaden its availability, the Yearbook is published online and in print from 2006 on as a supplement of *Methods of Information in Medicine*. All original papers are peer reviewed, Medline indexed and impact factor listed.

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## Correspondence to:

Hans E Peterson  
 Bavervagen 44  
 SE-16830 Bromma, Sweden  
 Tel: +46 826 9489  
 E-Mail: [hans.peterson@hsi.se](mailto:hans.peterson@hsi.se)