REPORT OF THE Vice President for Working Groups and Special Interest Groups (WG/SIGs) Part 2 – reports of the WGs and SIGs

Ying Wu, VP for IMIA WG/SIG

Full individual SIG and WG Reports
This part is a compilation (Part VI) of the WG/SIG reports received from each group.

Special Interest Group: Nursing Informatics

Report for the Year June 2016 – May 2017

Website: http://imia-medinfo.org/wp/sig-ni-nursing-informatics/

Chair (2016 - 2020)
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Vice-Chair - Finance & Administration (2016 - 2020)
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Vice-Chair - Membership (2016 - 2020)
Name Sayonara Barbosa
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Vice-Chair - Working Groups (2016- 2020)
Name Kaija Saranto
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Vice-Chair - Communications (2016-2020)
Name Ann Kristin Rotegard
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1. Background – Brief description of the WG/SIG mission, vision, and objective. The focus of IMIA-NI is to foster collaboration among nurses and others who are interested in Nursing Informatics to facilitate development in the field. We aim to share knowledge, experience and ideas with nurses and healthcare providers worldwide about the practice of Nursing Informatics and the benefits of enhanced information management.

Our current goals & objectives

• Explore the scope of Nursing Informatics and its implications for health policy and information handling activities associated with evidence based nursing practice, nursing management, nursing research, nursing education, standards and patient (or client) decision making and the various relationships with other health informatics entities.

• Identify priorities or gaps and make recommendations for future developments in nursing informatics.

• Support the development of nursing informatics in member countries and promote nursing informatics worldwide.

• Promote linkages and collaborative activities with national and international nursing and health informatics groups and nursing and health care organizations globally.

• Provide, promote and support informatics meetings, conferences, and electronic communication forums to enable opportunities for the sharing of ideas, developments and knowledge.

• Participate in IMIA working groups and special interest groups to present a nursing perspective.
• Develop recommendations, guidelines, tools and courses relating to nursing informatics.

• Encourage the publication and dissemination of research and development materials in the field of nursing informatics

• Support and work with patients, families, communities and societies to adopt and manage informatics approaches to healthcare.

We have initiated a process to solicited input from our country representatives to help us formulate a new mission, vision and objectives in light of the new strategy goals set by IMIA. We will be meeting with country representatives at our General Assembly virtual meeting in September.

2. Achievement - Events and projects conducted and publications completed

• The IMIA-NI Board continues to meet via video conferencing on a monthly basis.

• One of our early goals was to develop and make accessible the IMIANISIG web site. Our Communication Vice Chair, Ann Kristin Rotegard has been working with the IMIA Office to establish a new web presence. All country representatives now have access to files through a common password to enter the web site. We are still in the process of uploading more files that will be accomplished after Medinfo 17.

• IMIA-NI Student and Emerging Professionals Working Group is actively involved with IMIA-NI activities. The Chair has been meeting regularly with the group and they are in the process of helping use with the strategic planning process. The group is working with the IMIA Executive Committee to encourage student representatives for all countries that are members of NI-SIG. Their goal is to bring students interested in Nursing Informatics together to enable global collaborations, local partnerships and advance the science and practice of Nursing and Health Informatics.

• The Executive Committee worked with South Africa on the NI2018 light conference. Due to misunderstanding about the responsibility of a sponsoring organization, South Africa rescinded their bid. In response, the Executive Committee developed a NI Light Conference bid proposal format. This is being piloted with a proposal submitted by Dr. Amado Esposito, Country representative to IMIA from Mexico. The hosting organization is Amado Espinosa, IMIA Country Representative Mexican Medical Informatics Association, Mexican Ministry of Health and IMIA LAC. The theme is ICT to Improve Quality at the Point of Care. It will be held 6-8 of June 2018. A call for papers and their web site will be available soon.

• We have a new representative from Sri Lanka and Mexico. We continue to work with IMIA CEO to get a nursing representative from all countries that are members of IMIA. We wish to give sincere thanks Dr. Pamela Hussey, Dr. William Goossen, Dr. Hyeoun-Ae Parks, and Thomas Burkle for their service as country representatives.

• We polled country representatives about their attendance at Medinfo 17 and based on their responses, the executive committee made a decision to hold a NI SIG General assembly meeting in September via a video conference. There were relatively few country representatives that will attend Medinfo 17.
• A survey was sent to all country representatives to identify the unmet informatics needs in their country and their initial ideas for our new strategic plan. We have collected the data and will be analyzing this before the NI-SIG General Assembly meeting in the fall.

3. Participation - Engagement and participation in IMIA and health informatics events and activities

• IMIA-NI Education Working Group priorities are to maintain web presence for IMIA-NI Education and encourage the wide involvement of those new to informatics or from developing countries. This website, although separate from the IMIA-NI-SIG web site, it is linked to ensure continuity.

• Many members of IMIA-NI continue to attend and present on informatics topics at a range of conferences.

• Over the course of this year, we have sent several communications to support various informatics conferences offered by professional organizations such as HIMSS-International, European Federation of Medical Informatics, and other relevant nursing and informatics professional organizations.

• The Chair provided a welcoming video for the first nursing informatics track in the Commonwealth Medical Association 2016 Conference held in Sri Lanka.

• Patrick Weber and Kaija Saranto and Ann Kristin Røtegard, Vice Chairs have been very active this year with Medinfo 17 and the European Federation of Medical Informatics. Sayonara Barbosa, Vice Chair is very active with the Latin America Committee (LAC).

4. Outreach - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

• There are several working groups within NI-SIG. Some are very active such as the Education, Student and Emerging Professionals and the Health Informatics Standards. We are in the process of soliciting information and reports from the Evidence based Practice and Consumer/Connected Health Groups.

• NI-Education Working Group continues to provide a virtual center is to bring the best available evidence about nursing diagnoses and interventions to the point of care with the use of information and communication technology to support the health, and decision making about health, of people world-wide, which can be investigated by measuring of nursing outcomes. Their website is available at: https://sites.google.com/site/imianiedwg/home. The executive committee acknowledges the leadership of the Co-Chair(s): Drs. Paula Proctor and Michelle Honey.

• NI-Health Informatics Standards Working Group continues to explore the scope of Nursing Informatics and its implication for health policy and information handling activities associated with evidence based nursing practice, nursing management, nursing research, nursing education, standards and patient (or client) decision making and the various relationships with other healthcare informatics entities. Their website is http://imiani.clinicaltemplates.org/wiki/. The executive committee acknowledges the leadership of the Co-Chairs: Drs. Suzanne Bakken and Nicholas Hardiker.
Students and Emerging Professionals (SEP) Group (Formerly known as the Student Group). The following are the leadership of the SEP working group: Chair -- Charlene Ronquillo, Chair-elect -- Laura-Maria Peltonen, Secretary -- Lori Block, Communications -- Adrienne Lewis, Advisory Group -- Max Topaz, Lisiane Pruinelli and Emerging NI infrastructure regions representative -- Jude Tabayen. We want to acknowledge the SEP leadership for their productive endeavors.

In conjunction with IMIA CEO, IMIA members without IMIA-NI representatives have been encouraged to look at endorsing the appointment of an IMIA-NI representative.

IMIA-NI Board is establishing mechanisms for the wider membership using web based videoconferencing platforms. It is acknowledged that it is being increasing difficult to members to get support for travel for attendance at meetings and we need to look at technological solutions.

5. Collaboration - Working with other IMIA WG/SIGs or external organizations

IMIA-NI Board has worked closely with the new IMIA CEO over the past year.

- The NI-SIG has been working with various external professional organizations to promote nursing informatics. The Chair participated with ICN Strategic Planning Process in hopes of establishing a collaborative arrangement to foster nursing informatics agenda. The Vice Chairs have been active with the European Federation of Medical Informatics.

Special Interest Group: Francophone Special Interest Group

Report for the Year June 2016 – May 2017

Website: http://imia-medinfo.org/wp/imia-working-groups/

Board of the SIG:

**Chair (2012 - 2018)**

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1. Background

The focus of this SIG is to provide a collaborative environment for those Francophone members of IMIA whose ability to interact in English is limited, or when French language-specific issues may have a significant impact on medical informatics issues and would benefit from more synergies within the Francophone community.

This is substantiated by the organization of regular Francophone Medical Informatics conferences, through the JFIM series, and by fostering the development of natural language processing of French-language medical texts.

2. Membership, participation and outreach

SIG membership can be estimated through participation in the JFIM conference (50 participants at JFIM 2016) and in the SIG business meetings (15 to 20 participants when held outside the JFIM conference).

Outreach

Summary: The SIG was represented at the AMIA 2016 Fall Symposium and at the MIE (Informatics for Health) 2017 conference, and collaborated to organize an international shared task on ICD-10 concept coding of death certificates and to help establish the new SGIM.

Participation in IMIA events

SIG members from France and Switzerland are active in the organizing committee of MEDINFO 2019, to be held in Lyon, France.

A SIG member was part of the Scientific Program Committee of the AMIA 2017 Fall Symposium.
A SIG meeting was held during AMIA 2016 in Chicago on Nov 15, 2016 with 12 participants from France, Switzerland, Morocco, and the United States.

Collaboration

SIG members are collaborating with the CLEF organization for the CLEF eHealth shared task (see below).

Mali SIG members helped Gabon to create its Medical Informatics association (Société Gabonaise d’Informatique Médicale, SGIM), which was launched in March 2017.

3. Summary of objectives and achievements

The main objectives and achievements of the SIG in the present period concern the promotion of French language processing through a shared task under the umbrella of the international Cross-Language Evaluation Forum (CLEF) and the submission of a survey of clinical language processing in languages other than English. In fact, in contrast to a general tendency to focus on English because it is currently the main language of science, these Francophone SIG activities address not only French but extend towards other specific languages, surveying and promoting the processing of all languages.

**CLEF eHealth 2017:** after CLEF eHealth 2016, SIG members organized a second shared task to promote the natural language processing of French-language medical texts. This took place in the framework of the international CLEF initiative (http://clef2017.clef-initiative.eu/) which organizes shared tasks in Natural Language Processing every year. A task was proposed on both French and English. It consisted in coding causes of death in death certificates into the International Classification of Diseases version 10 (see https://sites.google.com/site/clefehealth2017/task-1) based on CépiDc (France) and CDC (United States) data. In total, eleven teams participated, including ten for English and nine for French. The teams originated from Australia, France, Germany, and Russia. The proposed methods improved over the best results of 2016 (F-score of 0.85) for concept coding from French medical texts. With a current F-score of 0.87 or 0.83 for French (aligned or raw certificates) and 0.85 for English (raw certificates), the ICD-10 coding task, organized in collaboration with the French Collaborating Centre for the WHO Family of International Classifications and the CDC, is of wider interest to other WHO collaborating centres. In 2017 the US CDC joined the shared task, in 2018 we are hoping to add Italy and Hungary.

**Survey paper:** As a follow-up to the panel held at the AMIA 2014 Fall Symposium on *Clinical Language Processing in languages other than English*, a journal paper was prepared by SIG members with colleagues representing a variety of natural languages. This gave a large part to French, but included it in a larger vision which promotes the processing of all national (and regional) languages which are useful in a clinical context. A revised version of the paper, rejected by the JAMIA, is currently under review by the Journal of Biomedical Semantics.

**Objectives for 2017-2018**

- Organize the renewal of the board of the SIG.
• Select the venue and organizers for the next JFIM conference, to be held in 2018.

• Continue the successful series of CLEF eHealth shared tasks on French-language clinical texts. Extend it to more languages.

• Extend the survey paper on Clinical Language Processing in languages other than English into a systematic review.

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**Working Group: Biomedical Pattern Recognition**

Report for the Year June 2016 – May 2017


**Working Group: Consumer Health Informatics**

Report for the Year June 2016 – May 2017


**Chair**

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1. **Background** – Brief description of the WG/SIG mission, vision, and objective

The support of active citizen involvement in his health and preventive care through information and communication technology bears numerous opportunities but equally risks. Setup well, Consumer Health Informatics can contribute significantly to better and more equitable health
care, also in developing countries. IMIA as an international institution with many 3rd world member and associate member states is a good hub for communication across continents and levels of development, hindered, though, through prohibiting travel cost for many from the poorest countries. So it is a specific aim of the WG to offer opportunities of exchange through electronic media. Secondly, consumer generated health data and more specifically consumer reported outcomes play an increasing role in the big data arena, alongside with clinical, epidemiological, omics and other data. Paving the way for a comprehensive use of consumer generated data, be they self reports or sensor recordings, together with other existing or emerging data modalities is another challenge of Consumer Health Informatics. This of course needs to be implemented in some local, landline, or mobile internet technology, possibly drawing on bluetooth or near field communication. But technology is regarded as an enabler, whereas end to end service design, patient empowerment, serious evaluation, and transition into practice are the core interests.

2. **Achievement** - Events and projects conducted and publications completed


3. **Participation** - Engagement and participation in IMIA and health informatics events and activities

4. **Outreach** - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

The service

[https://conshi.imbi.uni-heidelberg.de/chi/](https://conshi.imbi.uni-heidelberg.de/chi/)

has been developed through voluntary work at Heidelberg University. It offers a portal for protagonists of Consumer Health Informatics projects, mainly but not exclusively in developing countries to become members, register their projects and have access to information of and some statistics about other project. The portal is open for evaluation through peers at IMIA before we launch it to the general public. It presently contains some realistic data (including detailed descriptions of some projects covered in the 2014 Yearbook contribution of the working group) but no third party authentic project description. So testers of the system are encouraged to check the display, selection, and statistics functions but **should not take project details for granted**.

5. **Collaboration** - Working with other IMIA WG/SIGs or external organisations or institutions
Report for the Year June 2016 – May 2017


Chair (2016-2018)
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Background

The IMIA WG on Data Mining and Big Data Analytics has the following main objectives:

- To increase the awareness and acceptance of data mining and big data analytics methods in the biomedical community.
- To exchange knowledge and experience with respect to methods for data collection, data sharing, and data mining in biomedicine.
- To foster scientific discussion and disseminate new knowledge on AI-based methods for data analysis and data mining techniques applied to biomedicine. To promote the development of standardized platforms and solutions.
- To provide a forum for presentation of successful data science implementations in biomedicine, and for discussion of best practices in introduction of these techniques in medical and health-care information and decision support systems.

- Focus on specific topics of interest for the scientific community, in particular:
  - the exploitation of predictive analytics in clinical medicine,
  - knowledge-based functional genomics,
  - analysis of molecular phenotypes,
  - data mining models for the assessment of clinical risk,
  - temporal data mining in medicine and bioinformatics, and
  - evolutionary computation in biomedical knowledge discovery.

Achievement - Events and projects conducted and publications completed

- The working group has contributed to the 2017 Issue of the IMIA Yearbook of Medical Informatics with the following paper: *Secondary Use and Analysis of Big Data Collected for Patient Care. Contribution from the IMIA Working Group on Data Mining and Big Data Analytics*. F. J. Martin-Sanchez, V. Aguiar-Pulido, G. H. Lopez-Campos, N. Peek, L. Sacchi.

- The working group has contributed to the new *International Journal of Big Data and Analytics in Healthcare* (http://www.igi-global.com/journal/international-journal-big-data-analytics/126509), whose Editors in Chief are Fernando Martin-Sanchez (WG Chair) and John Holmes (former WG vice-chair). The main goal of this journal reflects the objectives of the WG, as it aims at providing timely and innovative research on the ways in which big data is revolutionizing the medical field. One issue was published during this report’s period. The working group has also endorsed the data mining competition organized by the American Medical Informatics Association Knowledge Discovery and Data Mining Working (AMIA KDD WG), that was held during the past AMIA conference in Chicago in November 2016. The two winning papers will be published in the next issue of the International Journal of Big Data and Analytics in Healthcare.

- The Working Group is also endorsing the NIH Big Data to Knowledge (BD2K) -funded ‘Big Data Course for Computational Medicine’ (BDC4CM), http://www.bdc4cm.org organised by Weill Cornell Medicine, in New York 10-13 July 2017. Prof Fernando Martin-Sanchez (WP Chair) is one of the organisers and also a faculty member for this training activity. 25 fellows will attend and the NIH Grant covers their expenses.

Participation - Engagement and participation in IMIA and health informatics events and activities:

- The WG endorses the 16th Conference on Artificial Intelligence in Medicine, held in Vienna on June 21-24 2017.

- The WG has submitted the panel proposal "Data Analytics Challenges in Precision Medicine", which was accepted at the MEDINFO 2017 conference, which will be held Conference in Hangzhou, China. The panel has been proposed by Fernando Martin-Sanchez (WG chair), Lucia Sacchi (WG vice-chair), Riccardo Bellazzi, and John H. Holmes.

- The activities of the WG will include the organization of a Summer School on "Big Data, Neuroscience, and Law", to be held in Pavia, Italy, in September 2017 (http://cht.unipv.it/index.php/events/big-data-school). The school is organized by Lucia Sacchi (WG vice-chair), Amedeo Santosuosso, Gabriella Bottini, and Barbara Bottalico, all members of the Centre for Health Technologies of the University of Pavia, Italy. The
aim of the school is to provide information about the increasingly advanced
neuroscientific findings and Big Data techniques, and their impact on each other and on
different legal systems. The interaction of the three main topics and the debate about the
role of science in shaping ethics and law has been influenced by their recent
advancements.

- Prof Fernando Martin-Sanchez was invited to give the Keynote speech at the APAMI
  2015 Conference in Seoul, Nov 2016. During his presentation, he introduced the new
  Journal and made several references to the IMIA Working Group.

- Prof Fernando Martin-Sanchez was invited to give the Keynote speech at the ITCH 2017
  Conference in Victoria, BC, Canada, Mar 2017. During his presentation, he introduced
  the new Journal and made several references to the IMIA Working Group.

**Outreach** - Recruitment and engagement of new members and target communities, publicity
and representation at major events and/or on social media.

- The Working Group maintains a Linkedin group (https://www.linkedin.com/groups/Data-Mining-
  Big-Data-Analytics-8121667/about?) which currently has 66 members. This represents a
  12% increase with respect to last year’s membership. The working group also maintains a
  freely accessible online Scoop-It channel on Big Data, Health and Biomedicine
  (http://www.scoop.it/t/big-data-health-and-biomedicine) where important news and research
developments in this field are curated, filtered, posted and regularly circulated through social
media channels (Facebook, Twitter and Linkedin WG page). The Scoop-It channel includes
more than 200 posts and has been seen by more than 1.300 users.

**Collaboration** - Working with other IMIA WG/SIGs or external organisations or institutions

- The working group will continue its linkage with the American Medical Informatics
  Association through the Knowledge Discovery and Data Mining Working Group.

- We will pursue closer collaboration with the EFMI WG on Translational Health
  Informatics.

- Prof Fernando Martin-Sanchez has been invited to join the new IMIA Task Force on
  Education, and he will try to raise awareness about the need to increase the training of
  specialists and users in Big Data Science.

**Working Group: Health and Medical Informatics Education**

Report for the Year June 2016 – May 2017

Website: http://imia-medinfo.org/wp/health-and-medical-informatics-education/
6. **Background** – Brief description of the WG/SIG mission, vision, and objective

Define the sub-domain of “health informatics for development” as it pertains to its parent “biomedical and health informatics” and as it relates to specific issues in low-to-medium income countries (LMICs)

Characterize the unique issues in health informatics experienced by LMICs such as those found in the social, political, and economic contexts

Identify best practice and lessons learned in health informatics that LMICs can adopt in order to build cost-effective health information systems

Connect developed and developing country health informatics experts for possible partnerships and collaborations

Redefine standards and interoperability in the context of the needs of LMICs

Identify innovations such as mobile health that make it possible for LMICs to design and implement health information systems at a cost they can afford

7. **Achievement** - Events and projects conducted and publications completed

**Publications**

Our work: "Cultural problem associated with the implementation of e-Health" was accepted to be presented at MEDINFO 2017. Authors for several regions participate in this work. Carlos Otero, Sonia Benitez, Jakir Hossain Bhuiyan Masud, Carola Hullin Lucay Cossio, Cynthia Villalba, Selene Indarte, Paula Otero, Sebastian Guillen, Fernando Campos, Daniel Luna, Alvin Marcelo, Analia Baum, Mowafa Househ, Mowafa Househ, Alejandro Deporte
Meetings

**HIMSS analytics 2017.** Orlando, USA. February 2017. Meeting with representatives of the group that assist the conference.

Other small conferences in the regions.

8. **Participation** - Engagement and participation in IMIA and health informatics events and activities

People of our working group participated in conferences in the field, like HIMSS in Orlando, as well many other small conferences in the regions.

Members still work focus in our big challenge: help small groups to develop their own projects, and work in the development of skills to reach one of our main objective: spread the regional experiences. We also collaborate in review process and generate workshops and tutorials.

Regional initiatives continue work in their local projects, the objective for 2017 will be to standardized the reports and efforts, in order to work, all the groups, in the same way

We established also relationships and studies in collaboration with other working groups.

Working group will meet in MEDINFO 2017 in Chine, in order to organize a new plan for spread the WG strategies. Representatives of each region will organize small groups. We think could be a more useful to mange so many different contexts. This heads of groups will be report then to the chair / vice chair

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**Working Group: Health Informatics for Patient Safety**

**Report for the Year June 2016 – May 2017**


**Chair:** (2014-2017)
Prof. Hiroshi Takeda
Dean and Professor Graduate School of Health Care Sciences,
Jikei Institute,
Osaka, Japan
The IMIA Working Group on Health Informatics for Patient Safety has been busy.

The purpose of the working group is to promote patient safety of health information systems and their associated medical devices. The focus of the working group is on safety in a broad sense including how healthcare information systems can improve patient safety, as well as identifying and rectifying safety issues that may arise from the use of health information systems.

We have undertaken several activities internationally. Much of our work has focused upon setting up and offering patient safety and healthcare quality panels and papers at health informatics and medical informatics conferences world-wide. We have also been involved in supporting/organizing the Context Sensitive Health Informatics: Human and Sociotechnical Approaches conference in Copenhagen Denmark.

Panel


Paper


Conference

We continue to extend our list of potential participants in the group.

**Contact information for the Chairs and Vice Chair:**

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Dr. Elizabeth Borycki
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**Working Group: Health Information Systems**

**Health Informatics for Development**

**Report for the Year June 2016 – May 2017**

**Website of the WG:** http://imia-medinfo.org/wp/health-information-systems-his/

**Chair (2012 - 2015 and 2016 - 2018)**

Name: Stephane Meystre  
Affiliation and address: Medical University of South Carolina, Charleston, SC, USA
9. **Background** – Brief description of the WG/SIG mission, vision, and objective
   - Promote systematic development and research in the field of health information systems;
   - Promote research and efforts on efficiency and cost-effectiveness of health information systems for the healthcare, health delivery and access to health;
   - Promote research and development in the domain of sustainability in health information systems;
   - Promote evaluation, identify and assess problems and success factors of health information systems.

10. **Achievement** - Events and projects conducted and publications completed

   Current activities focus on **clinical data reuse** (or secondary use).

   **April 2017:** Publication of a “Clinical Data Reuse or Secondary Use: Current Status and Potential Future Progress” review paper in the Yearbook 2017 resulting from a >1-year collaborative effort between several HIS WG members.

   Submission of panel and workshop proposals at international conferences (AMIA and Medinfo).

   Preparation of a white paper reporting about recent workshops (Göttingen in 2014, Medinfo 2015), a collaboration between multiple members active in the working group (mentioned below).

11. **Participation** - Engagement and participation in IMIA and health informatics events and activities

   Submission of an “Unstructured Clinical Data Reuse for Precision Medicine: Current Status and Future Progress” workshop accepted for the upcoming Medinfo 2017 conference. Will feature presentations by 5 experts (Drs. Lehmann, Xu, Cornet, Parra-Calderón, and Meystre), 2 invited presentations from the community and a roundtable discussion.

12. **Outreach** - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media
Preparation of publications based on collaborations between several working group members (white paper about recent workshops).

The LinkedIn page we created for WG members communication is still regularly used.

13. **Collaboration** - Working with other IMIA WG/SIGs or external organizations or institutions

Collaborations with the AMIA, as submissions of proposals for a panel and a workshop focused on clinical data reuse at the fall 2016 annual conference and 2017 TBI/CRI summit; both submissions were unfortunately not accepted.

## Working Group: History in Biomedical and Health Informatics

**Report for the Year June 2016 – May 2017**

Website of the WG: [www.infohistory.rutgers.edu](http://www.infohistory.rutgers.edu)


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Name: Robert A. Greenes
1. Background – Brief description of the WG/SIG mission, vision, and objective
The Biomedical and Health Informatics History Working Group of IMIA was approved at the IMIA GA held in New Delhi in conjunction with APAMI 2014 in August, 2014, and held its first official meeting in conjunction with Medinfo 2015 in Sao Paulo in August 2015. The IMIA History Working Group’s main objectives are to sponsor meetings, investigations, studies and generate materials and publications on the history of biomedical and health informatics. It has continued and is extending the activities of the IMIA History Task Force on the 50th Anniversary of Medical Informatics, providing coordinating mechanisms for activities of different professional, regional and national groups engaged in related historical studies of the field. The Working Group will focus on gathering, archiving, and indexing historical documents and materials from IMIA and related professional society, institutional, and individual sources, develop and maintain a web-site and a media-wiki for these purposes, and sponsor the publication of an eBook on the History of International Biomedical and Health Informatics that summarizes and disseminates the results. Based on discussions with IMIA, EFMI, and other organizations we have found that IOS Press will provide the most convenient and economical means of publication as an eBook, and have been in contact with them to make use of their services based and received estimates that will be consistent with the funding made available for this publication by the IMIA Board.

14. Achievements - Events and projects conducted and publications completed
The Working Group has moved forward in sponsoring and encouraging the gathering of IMIA-related archival materials, with a prototype media repository at Rutgers University that can help those contributing to the 50th Anniversary IMIA History book or writing their own recollections and histories. The materials support the writing and chronicling of the development and evolution of IMIA, its contributors, its sponsored events and publications, educational and other professional activities.

Activities and achievements related to the IMIA History WG since June 2016:

a) Participation in Geneva, Switzerland, on June 27, 2016, in the Nursing Informatics NI 2016 - related Social Media session organized by L. Luque on "Social Media as catalyzer for Connected Health, hype or hope? Perspectives from IMIA Working Groups", where Kulikowski presented the perspectives of the IMIA History WG and contrasted the differences between healthcare-oriented social media vs. uses focusing on research and education.
b) Invitations to contributors to BMHI internationally to provide short personal stories for the 50th Anniversary IMIA History on how they became involved and contributed to BMHI in its different specialties and threads of research, practice, and education. These help supplement previously published materials on the History of BMHI in the IMIA Yearbook, the journals of the Association, and other sources.

c) Participation in MIE-2016-HEC held in Munich in August 2016, in the form of two panels organized, respectively, by Anne Moen on “EFMI at 40: Anticipating the Future - Appreciating the Past”, and Reinhold Haux on “Are we doing the right research and are we doing it right?” Kulikowski discussed the IMIA History WG and its projects with panelists, including Dr. Mihalas, from the IMIA History WG. We emphasized the key role of historical narration to capture the experiences of biomedical and health informatics researchers and practitioners so as to distill lessons from the past that can inform the future development of our field.

d) Participation in AMIA 2016, held in Chicago in November 2016 in the form of an ACM History Panel on the “History of Biomedical and Health Informatics - 40th Anniversary of SCAMC” The focus was on the development and evolution of medical informatics in the USA as it organized its first nation-wide conference in 1977, which also drew a number of participants internationally, and helped connect them with US research institutions and develop collaborations which have persisted to this day.

e) Publication in the 2017 IMIA Yearbook of Medical Informatics of two IMIA history papers by authors from the IMIA History WG:

   The IMIA History Working Group: Inception through the IMIA History Taskforce, and Major Events Leading Up to the 50th Anniversary of IMIA


   Historical Roots of International Biomedical and Health Informatics: The Road to IFIP-TC4 and IMIA through Cybernetic Medicine and the Elsinore Meetings

   C. A. Kulikowski

f) Ongoing work on soliciting the manuscripts, writing, compilation, editing, and publication of the 50th Anniversary IMIA History of Medical Informatics.

g) Election of all the leadership of the IMIA History WG to the new International Academy of Health Sciences Informatics (IAHSI): R. Greenes, C. Kulikowski, G. Mihalas, H-A Park, and V. Yacubsohn.

h) Participation in Medinfo 2017 in China, with a planned workshop and presentation, including the structure and contents of the 50th Anniversary of IMIA History book.

**15. Participation - Engagement and participation in IMIA and health informatics events and activities**

   a) The collaboration with the Social Issues WG yielded fruit in the participation of the IMIA History WG in NI2016 which led to a very robust discussion and inclusion of many from the IMIA-NI community in the activities of the History WG, since Nursing Informatics leaders were the earliest members of the IMIA community to develop historical records and writings of their activities.
b) Collaborations resulting from the participation in MIE 2016 – HEC in Munich in August 2016,
c) Collaborations resulting from the AMIA Annual Meeting in Chicago in November.
d) Hosting of Dr. S.Gogia during his visit to New Jersey by Dr. Kulikowski to discuss the history activities with APAMI and its constituent societies.

3. Outreach - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media.

Each of the above meetings helped in the recruitment of new prospective members to the WG, and the number of members has increased with each international meeting.

Members of the WG based on the interest they have evidenced as participants, or other colleagues who have indicated their interest in contributions to the history work, and recommended in the Workshops on IMIA History at Medinfo 2010, 2013, 2015, and the other IMIA-related venues like MIE, APAMI, AMIA, NI and other meetings listed above, include:

a) Africa (HELINA): Lyn Hanmer (South Africa), Brenda Faye (South Africa), Ghislain Kouematchoua Tchuitcheu (Cameroon), Rada Hussein (Egypt)
b) Asia-Pacific (APAMI): Enrico Coeira (Australia), Andrew Georgiou (Australia), Joan foster (Australia), Sashi B. Goggia (India), Evelyn Hovenga (Australia), Inga Hunter (New Zealand), Tze Yun Leong (Singapore), Jack Li (Taiwan), Jia Lin Liu (China), K.C. Lun (Singapore), Michio Kimura (Japan), Siaw-Teng Liaw (Australia), Hyeoun-Ae Park (Korea), Hiroshi Takeda (Japan), Ken Toyoda (Japan), Klaus Veil (Australia), Lucy Westbrook (New Zealand), Johanna Westbrooke (Australia), Chun-Por Wong (Hong Kong-China), Helen Ying Wu (China), Junping Zhao (China)
c) Europe (EFMI): Jos Aarts (The Netherlands), Klaus-Peter Addlassnig (Austria), Stig Andersen (Denmark), Barry Barber (UK), Robert Baud (Switzerland), Riccardo Belazzi (Italy), Bernd Blobel (Germany), Leon Bobrowski (Poland), Catherine Chronaki (Greece), Ronald Cornet (The Netherlands), Patrice Degoulet (France), Simon deLusignan (UK), Tomas M. Deserno (Germany), Gjuro Djezelic (Croatia), Rolf Engelbrecht (Germany), Marius Fieschi (France), Francis Roger France (Belgium), Guenther Gell (Austria), Antoine Geissbuhler (Switzerland), Kemal Hakan Gulkoen/Gulkesen (Turkey), Anna Hafer (Iceland), Arie Hasman (The Netherlands), Reinhold Haux (Germany), Mira Hercegojna-Szekeres (Romania), Jacob Hofdijk (The Netherlands), Petter Hurlen (Norway), Gerard Hurl (Ireland), Ilias Iakovidis (EC), Monique Jaspers (Netherlands), Edward Kacki (Poland), Josipa Kern (Croatia), Sabine Koch (Sweden), Gyorgy Kozmann (Hungary), Luis Lapao (Portugal), Kees Louwese (Netherlands), John Mantas (Greece), Fernando Martin-Sanchez (Spain), Istvan Bacsi (BH), Peter McNair (Denmark), George Mihalas (Romania), Victor Maojo (Spain), Oleg Mayorov (Ukraine), Christina Mazzoleni (Italy), Anne Moen (Norway), Ragnar Nordberg (Sweden), Pirko Nykanen (Finland), Jose Luis Oliveira (Portugal), Andrej Orel (Slovenia), Carlos Luis Parra Calderon (Spain), Mor Peleg (Israel), Hans Peterson (Sweden), Francesco Pincirolli (Italy), Alan Rector (UK), Bernard Richards (UK), Otto Rienhoff (Germany), Jean-Marie Rodrigues (France), Nils Rosssing (Denmark), Batami Sadan (Israel), Ferran Sanz (Spain), Kaja Saranto (Finland), Werner Schneider (Sweden), Brigitte Seroussi (France), Amnon Shabo (Israel), Yuval Shahar (Israel), Michael Shifrin (Russia), Gyorgy Surjan (Hungary), Jan Talmon (Netherlands), Diarmuid UaConnail (Ireland), Jan van Bemmel (The Netherlands), Johann van der Lei (Netherlands), Patrick Weber (Switzerland), Alfred Winter (Germany), Jana Zvarova (Czech Republic)
d) North America (AMIA and COACH): Michael Ackerman (US), Russ Altman (US), Constantin Aliferis (US), Joan Ash (US), Suzanne Bakken (US), Marion Ball (US), David Bates (US), Eta
Berner (US), Bruce Blum (US), Elizabeth Boryst (Canada), Jim Brinkley (US), Bruce Buchanan (US), Chris Chute (US), James Cimino (US), William Clancey (US), Paul Clayton (USA), Greg Cooper (US), Dominic Covvey (Canada), George Demiris (US), Don Detmer (US), Scot Evans (USA), Julio Facelli (US), John Flint (Canada), Reed Gardner (USA), Lael Gatewood (US), Andrew Grant (Canada), Robert Greenes (US), Susan Grobe (US), W. Ed Hammond (US), Bill Hersh (US), John Holmes (US), George Hripcsak (US), Stan Huff (USA), Betsy Humphreys (US), Kevin Johnson (US), Ross Koppel (US), Andre Kushniruk (Canada), Christoph Lehman (US), Donald A.B. Lindberg (US), Nancy Lorenzi (US), Alexa McCray (US), Kathleen McCormick (US), Clem McDonald (US), Julie McGowan (US), Joyce Mitchell (US), Jochen Moehr (Canada), Mark Musen (US), Gill Ommen (US), Judy Ozbolt (US), Denis Protti (Canada), Tom Rindfleisch (US), Cornelius Rosse (US), Virginia Saba (US), Neil Sarkar (US), Charles Safran (US), Richard Shiffman (US), William Siegel (US), Diane Skiba (US), Ted Shortliffe (US), Peter Szolovits (US), Paul Tang (US), Peter Tarczy-Hornoch (US)

Latin America (IMIA-LAC): Lincoln Assis de Moura (Brasil), Beatriz da Feria Leao (Brasil), Feran Gonzales Bernaldo de Quiros (Argentina), Carol Hullin (Chile), Daniel Luna (Argentina), Heimar Marin (Brasil), Alvaro Margolis (Uruguay), Amado Espinosa (Mexico), Paula Otero (Argentina), Renato Sabatini (Brasil), Valerio Yacubsohn (Argentina)

e) Latin America (IMIA-LAC): Lincoln Assis de Moura (Brasil), Beatriz da Feria Leao (Brasil), Feran Gonzales Bernaldo de Quiros (Argentina), Carol Hullin (Chile), Daniel Luna (Argentina), Heimar Marin (Brasil), Alvaro Margolis (Uruguay), Amado Espinosa (Mexico), Paula Otero (Argentina), Renato Sabatini (Brasil), Valerio Yacubsohn (Argentina)

16. **Collaboration** - Working with other IMIA WG/SIGs or external organisations or institutions

The IMIA History WG participates with other WGs of IMIA including: a) SIG Nursing Informatics: because Nursing Informatics has pioneered work on the history of the field, we can draw on their experiences and coordinate with their activities; b) Organizational and Social Issues WG: This is another WG with natural connections to our History WG, given that the history of biomedical and health informatics has strong social and organizational aspects; and as indicated above we are c) Health and Medical Informatics Education WG: Understanding the evolution of our field is an important component of the education of informaticians, so coordination of activities with this WG could prove very valuable.

The History IMIA WG will also work with other affiliated organizations in fields such as in Nursing and Public Health to recruit members who are interested in contributing to the ongoing archiving, compilation, and writing of both personal accounts as well as more systematic overviews of the evolution and development of themes and topics in particular regions and countries.

In addition we are collaborating with the IEEE History Center, with its Director, Michael Geselowitz, joining the external editorial review committee for the 50th Anniversary IMIA History of BMHIs since he has considerable experience in the archiving and compiling, editing, and publications in the history of technology.

WHO and HON and other groups which have been active in technological aspects of healthcare and the development of informatics methods and systems may also be interested in sponsoring historical work related to biomedical and health informatics which we can draw on.

17. **Plans for 2017-2018:**

Since the IMIA History Working Group is currently intensely involved in producing the 50th Anniversary IMIA History Book, we suggest that the present leadership be continued for one more term of 2017-2020 in order to complete the work on the book, and propose the next step, which, as indicated below, would involve a second, interpretive volume to supplement the individual essays and IMIA member and group
essays to be included in the current volume.

Specific Itemized plans for the coming year involve the following:

1) Participation in Medinfo 2017 in Hangzhou, China, with presentations, workshop, and introduction of the 50th Anniversary IMIA History book.
2) Participation in AMIA 2017, with a workshop for the American College of Medical Informatics (ACMI) Committee of Historians to discuss the development of novel approaches that arise from the analyses of the enduring challenges identified in the IMIA History as well as the prior 2016 ACMI meeting.
3) Participation in other subsequent biomedical and health informatics meetings internationally by members of the IMIA History WG.
4) Extension of contributed essays to the IMIA 50th Anniversary History book in order to obtain as complete and comprehensive coverage as possible for different countries, regions, and subspecialties of the discipline, and permit publication of excellent essays that would be too long for the current 400-page budgeted publication.
5) Request to IMIA Board for additional publication funding of from $4,000 to $4,500 to cover up to a 600-700 page book so as to ensure the comprehensiveness as detailed under the previous item.
6) Planning for a second contributed volume of interpretive historical analyses of international developments in biomedical and health informatics, drawing on The personal stories contained in the 50th Anniversary IMIA History of International Biomedical and Health Informatics, as well as the contributions from national, regional and specialty societies, and working groups in terms of progress made over historical conditions and issues, contrasting to persistent or enduring challenges faced by our field with different international dimensions.

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**Working Group: Health Record Banking**

**Report for the Year June 2016 – May 2017**

**Website of the WG:** [http://www.imia-medinfo.org/new2/node/474](http://www.imia-medinfo.org/new2/node/474)

**Chair (2014 - 2017)**

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**Vice-Chair (2014 - 2017)**

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Email: william.yasnoff@healthbanking.org
18. **Background** – Brief description of the WG/SIG mission, vision, and objective

**Mission and vision:**

Studying sustainability models of health records (patient/individual-centric, longitudinal, cross-institutional and interoperable), with an emphasis on the health record banking model, which is focused on the following key principles:

1. independent/trusted organizations that curate and manage the records on behalf of patients and make it available to all authorized parties
2. the records of each patient are logically aggregated in one place (but not all patient records are in the same place thanks to multiple & independent banks)
3. Greater control for patients over their own records with no need for globally unique patient’s id

**Objectives of the WG:**

1. Promote legislation change that will give rise to HRB establishment
2. Promote international collaboration on HRB, especially between existing HRB experiences in Europe and the US
3. Foster HRB initiatives around the globe
4. Work with the HRB Alliance (http://www.healthbanking.org)

19. **Achievement** - Events and projects conducted and publications completed

**MIE 2016**

Conducted a workshop:

IMIA Working Group on Health Record Banking – Workshop on How Complex Systems can Cooperate towards having Individual’s Consolidated Data;

Speakers & authors:

a. Amnon SHABO (SHVO) - Philips,
b. Tony SAHAMA - Queensland University of Technology in Australia,
c. Jacob HOFDIJK - Casemix,
d. Ernst HAFEN - ETH Zürich,
e. Serge BIGNENS - Bern University of Applied Sciences,
f. William GOOSSEN - Results 4 Care,
g. William YASNOFF - Health Record Banking Alliance and Division of Health Sciences Informatics, Johns Hopkins University and Marion BALL - IBM Research and Johns Hopkins University

**Paper publication**

- describes a method for preventing total data loss in a central repository, essential for health record bank operation


**20. Participation** - Engagement and participation in IMIA and health informatics events and activities


**21. Outreach** - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

- Through our vice-chair Dr. Yasnoff who is the President and CEO of the non-profit Health Record Banking Alliance, we reach out to this community and participate at times in their activities.
- Our LinkedIn group has 150 members ([https://www.linkedin.com/groups/7300138](https://www.linkedin.com/groups/7300138)).

**22. Collaboration** - Working with other IMIA WG/SIGs or external organisations or institutions

- We’re collaborating with the Village Foundation / Blue Line
  Jacob Hofdijk (Casemix, CQT Health & Care Group) gave a talk at the Digital Enlightenment Forum, titled “Key principles for the design and delivery of person-centred, integrated care systems - The Blue Line connecting patient data safe and secure through the silo’s”

- We’re collaborating with MIDATA.COOP
  Ernst Hafen (IMSB, ETH Zürich, CH), MIDATA.coop – gave a talk at the Digital Enlightenment Forum, titled “Enabling efficient linkage of health data by citizen-controlled data access” ([https://digitalenlightenment.org/event/trusted-data-management-health-care](https://digitalenlightenment.org/event/trusted-data-management-health-care))
Working Group: Human Factors Engineering for Healthcare Informatics

Report for the Year June 2016 – May 2017

Website: http://imia-medinfo.org/wp/human-factors-engineering-for-healthcare-informatics/

Chair
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Vice-Chair
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1. **Background** – Brief description of the WG/SIG mission, vision, and objective

Human factors can be the difference between systems that function well in the clinical environment and systems that function poorly. The Physician-Patient relationship has now become the Physician-Computer-Patient relationship. Human factors engineering is the field of study, which deals with the cognitive aspects of the human computer interaction. This working group discusses methods for studying the computer-human interaction in health. New research and methods adapted from human factors and usability engineering are needed to evaluate the complex systems facing both clinicians and patients today. Further, this working group engages in discussions regarding optimal interface designs for health informatics software to make the computer a more welcome partner with both the clinician and the patient in the empowered longitudinal care of the individual.

2. **Achievement** - Events and projects conducted and publications completed

Andre Kushniruk was the chair for the international conference addressing Information Technology and Communications in Health (ITCH 2017) held in Victoria in February 2017, with the conference theme: building capacity for health informatics in the future. The conference was
attended by over 200 delegates who presented over 70 papers of which many were related to human factor issues.

The WG is one of the main organizers of the Pre-Medinfo conference Context Sensitive Health Informatics to be held in Hong Kong. The contributions from the conference will be open access published on IOS Press in the series: Studies in Health Technology and Informatics.


Christian Nohr and Andre Kushniruk also contributed on behalf of the WG to an IMIA Yearbook 2017 paper (entitled “Are we there yet? Human factors knowledge and health information technologies – the challenges of implementation and impact”) led by Paul Turner, University of Tasmania.

3. **Participation** - Engagement and participation in IMIA and health informatics events and activities

Christian Nohr participated in a workshop with the title: *Medication Reconciliation – time to rethink informatics support?* at the Informatics for Health 2017 conference in Manchester. The conference was co-organized by the European Federation of Medical Informatics (EFMI) and the FARR institute for Health Informatics. The event brought together 800+ participants from data science and health informatics. Other participants in the panel were: Anne Moen, Petter Hurlen, Line Helen Linstad, Catherine Chronaki.

4. **Outreach** - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

Our WG has held meetings at Medinfo 2013 and 2015 in an attempt to attract new members and collaboration with other groups.

5. **Collaboration** - Working with other IMIA WG/SIGs or external organizations or institutions

Our WG is collaborating with the IMIA WG on Evaluation, Organizational and Social Issues, the WG on Patient Safety, and Primary Health Care Informatics WG.

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**Working Group: Informatics in Genomic Medicine**

**Report for the Year June 2016 – May 2017**


**Chair (2016 - 2019)**

Name Dr. Lewis Frey, PhD
Affiliation and address:
23. **Background** – Brief description of the WG/SIG mission, vision, and objective

The Informatics in Genomic Medicine (IGM) workgroup mission is to effectively link patient genotype and phenotype information through a bi-directional flow of data, tools and methods between two traditionally separate areas of informatics: clinical informatics and bioinformatics.

Our vision is to improve health outcomes through precision medicine informatics in healthcare.

The IGM WG objectives are to:

- Provide a forum to enhance collaboration, share experiences, and promote research in this field.
- Increase communication with other working groups at IMIA, AMIA and other organizations relevant to IGM including groups with an emphasis on genomic and precision medicine and informatics from the biomedical community, computing research and bioinformatics as relevant.
- Establish itself as a scientific reference on issues related to information technology projects in genomic medicine and precision medicine.

24. **Achievement** - Events and projects conducted and publications completed

25. Participation - Engagement and participation in IMIA and health informatics events and activities

The main activity for the Informatics in Genomics Medicine (IGM) workgroup was the Big Data Precision Medicine training sponsored by IMIA at the University of Pavia in Pavia, Italy. Dr. Frey was invited by Dr. Riccardo Bellazzi to present on architectures to support big data omics analysis with relevance to precision medicine. The Summer Program was well attended with over 50 international students and professionals who learned about big data architectures of interest to genomic medicine and precision medicine initiative.

26. Outreach - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

Our outreach has been to encourage individuals attending conferences and trainings such as the one in Pavia to become involved in IMIA and the IGM workgroup. This encouragement takes places via individual conversations and leadership activities (e.g., JAMIA article), announcements at related meetings and online posts. In 2015, we setup an IMIA IGM google group (i.e., https://groups.google.com/forum/#!forum/imia_igm). This group is in the early stages, but has been used to share information on paper and funding opportunities. We are also hoping to develop content that can be loaded onto a wiki and be curated by members.

27. Collaboration - Working with other IMIA WG/SIGs or external organizations or institutions

Dr. Frey will be presenting another session at the IMIA sponsored training at the University of Pavia on big data informatics of genomic medicine with relevance to the neurological disease. With potential international partnerships underway on big data analysis for neurological disorders such as multiple sclerosis, the training will provide opportunities to establish collaborations across Europe and the United States. The IMIA sponsored training at the University of Pavia has potential to invigorate Genomic Medicine activities of the workgroup.

Working Group: Language and Meaning in Biomedicine

Report for the Year June 2016 – May 2017

Website of the WG: http://imia-medinfo.org/wp/language-and-meaning-in-biomedicine/
LinkedIn of the WG: https://www.linkedin.com/groups/3680642

Chair (2015-2018)
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Vice-Chair (2012 – 2017)
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Vice-Chair (2015 – 2017)
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1. **Background** – Brief description of the WG mission, vision, and objective

IMIA’s WG Language and Meaning in Biomedicine (formerly known as the Medical Concept Representation Working Group up to 2014) is an international forum for state-of-the-art dialogue and collaboration on semantics in healthcare and biomedical research, encompassing language, biomedical terminologies and ontologies. Since its formation, the working group was charged with: (1) Reviewing health data terminology and classification needs for the world community; (2) Evaluating information processing technology in meeting these defined needs; and (3) Recommending methods for future terminology systems.

2. **Achievement** - Events and projects conducted and publications completed

Successful submission for Medinfo 2017: Workshop “Unstructured Clinical Data Reuse for Precision Medicine: Current Status and Future Progress”

3. **Participation** - Engagement and participation in IMIA and health informatics events and activities


4. **Outreach** - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

The LinkedIn group has over 100 members. In this group the WG leadership aims to publish regular updates on relevant events.

5. **Collaboration** - Working with other IMIA WG/SIGs or external organizations or institutions

The WG participated in the preparation of a manuscript which is submitted as white paper for JAMIA, in collaboration with the JAMIA KR+S WG

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**Working Group: Open Source Health Informatics**

**Report for the Year June 2016 – May 2017**

**Website of the WG:** (and other relevant sites)

http://imia-medinfo.org/wp/open-source-health-informatics/

**Chair (2014 - 2017)**

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Vice-Chair (2014 - 2017)
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6. **Background** – Brief description of the WG/SIG mission, vision, and objective

IMIA OS WG has been formed in 2002 with the objective to focus on educational, promotional and 'evangelistic' activities to raise awareness of open source software in health care. The primary objectives of the IMIA OS WG are to:

- disseminate knowledge about the benefits and prospects of FLOSS in health care among IMIA members and outside of IMIA,
- provide a neutral collaboration platform for all stakeholders in health care in respect to FLOSS,
- to foster collaborations between FLOSS-HC projects and
- to lower the perceived barriers to the adoption of FLOSS in health care
- to design a sustainable business model for FLOSS in health care
- to cultivate modern development style for medical software.

7. **Achievement** - Events and projects conducted and publications completed

- IX. IWEEE 2016/GNUHealthCon 2016, 18-20 Nov, Las Palmas, Spain
- Open Source Village at Med-e-Tel 2016, April 6-8, Luxembourg

OS WG Contribution to the IMIA Yearbook 2017:

8. **Participation** - Engagement and participation in IMIA and health informatics events and activities

- International Workshop on E-health in Emerging Economies 2016 (IWEEE2016), 18-20 Nov 2016, Las Palmas de Gran Canaria, Spain
- APAMI(Asia Pacific Medical Informatics) 2016, 2-4 Nov, 2016, Seoul, Korea
- The 12th Medical Open Source Software Seminar in Japan, 4 February 2017, Kyoto, Japan
- The 5th General Meeting of AeHIN, 6-10 March 2017, Nay Pyi Taw, Myanmar
- Informatics for Health 2017, 24-26 April 2017, Manchester, UK
9. **Outreach** - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

Maintenance of the MedFLOSS database

Web site appeal for events and publication resources. [http://www.moss.gr.jp/](http://www.moss.gr.jp/)

10. **Collaboration** - Working with other IMIA WG/SIGs or external organisations or institutions

   - EFMI Libre/Free Open Source Software Working Group
   - International Society for Telemedicine and eHealth (ISfTeH)
   - Collaborative Care Team Open Source Working Group (CCTOS WG)
   - Collaboration with AeHIN(ASEAN)
   - Medical Open Source Software council in Japan(Japan)
   - Open Source Conference, Japan
   - The openEHR Project in Japan

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**Working Group: Organizational and Social Issues**

Report for the Year June 2016 – May 2017

**Website of the WG: (and other relevant sites)**


**Chair (2016- 2019)**

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**Vice-Chair (2014- 2017)**

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1) **Background** – Brief description of the WG/SIG mission, vision, and objective
The purpose of the Organizational and Social Issues working group is to promote Organizational and Social Issues and the role they play in medical informatics. Given the increased implementation of health information technology and the focus on approaches such as Big Data, Patient Participatory Medicine and collaborative care delivery, it is more important than ever to ensure that organizational and social contexts are considered and studied as part of the design and evaluation of informatics based solutions.

11. Achievement - Events and projects conducted and publications completed

The WG published a paper in the 2016 IMIA Yearbook of Medical Informatics titled “Understanding Unintended Consequences and Health Information Technology: Contribution from the IMIA Organizational and Social Issues Working Group”.

Craig Kuziemsky also contributed on behalf of the OSI WG to a 2016 IMIA Yearbook paper led by Simon de Lusignan and Siaw Teng Liaw (IMIA Primary Care Working Group and to a Yearbook paper led by Elizabeth Borycki (IMIA Health Informatics for Patient Safety Working Group).

12. Participation - Engagement and participation in IMIA and health informatics events and activities

The WG had a meeting in Munich at HEC2016. Rebecca Randell was lead organizer of a workshop at HEC2016 on “Mixed Methods Evaluations for Understanding Impact on Patient Outcomes and Work Practice”. Craig Kuziemsky was lead organizer on a panel at HEC2016 on “International Perspectives on Innovation in HIT to drive Healthcare Transformation” that also had participation from two other IMIA working groups.

Craig Kuziemsky is co-chair of Context Sensitive Health Informatics 2017, a pre-Medinfo conference being held in Hong Kong on august 18&19. Christian Nøhr (IMIA Human Factors Engineering for Healthcare Informatics) is co-chair.

13. Outreach - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

Our WG has held meetings at Medinfo 2013 and 2015 in an attempt to attract new members and collaboration with other groups. A WG meeting will be held at Medinfo 2017 in Hangzhou.

14. Collaboration - Working with other IMIA WG/SIGs or external organizations or institutions

Craig has been working with the IMIA Primary Care and Patient Safety Working Groups.

Rebecca and Craig have met with Laurie Novak, Jessica Anker and Jos Aarts at to look at establishing connections between the AMIA People and Organizational WG and our IMIA WG. Rebecca is Chair of the EFMI Human and Organizational Factors (HOFMI) WG, providing a link between the EFMI HOFMI WG and our IMIA WG.
Contributions to the IMIA Yearbook of Medical Informatics:

- This year was the Working Group’s ninth contribution to the Yearbook of Medical Informatics. We conducted a truly international survey of how quality indicators in Type 2 Diabetes, which was our contribution to the IMIA Yearbook.
- Using the Institute of Medicine framework we defined six dimensions of quality for healthcare systems: (1) safety, (2) effectiveness, (3) patient centeredness, (4) timeliness of care, (5) efficiency, and (6) equity. Large health datasets provide an opportunity to assess quality in these areas.

We received 14 responses from seven countries (Australia, Canada, Italy, the Netherlands, Norway, Portugal, Turkey and the UK). Most databases reported frequent data uploads and would be capable of near real time analysis of healthcare quality. The majority of recorded data related to safety (particularly medication adverse events) and treatment efficacy (glycaemic control and microvascular disease). Data potentially measuring equity was less well recorded. Recording levels were lowest for patient-centred care, timeliness of care, and system efficiency, with the majority of databases containing no data in these areas. Databases using primary care sources had higher data quality across all areas measured.

We plan to submit to the 2018 yearbook: Sharing data: balancing access and privacy to advance healthcare. Any new or current working group members who wish to
contribute should contact either the chair Prof Siaw-Teng Liaw (siaw@unsw.edu.au) or Prof Simon de Lusignan (s.lusignan@surrey.ac.uk).

**Informal meeting at MIE in Manchester:**
A number of members of the Working Group met with its chair Prof Teng Liaw and Co-Chair Prof Simon de Lusignan at MIE2017 “Informatics for Health” in Manchester. The principal area of discussion was informatics to support different models of child health services.

**Journal of Innovation in Health Informatics (formerly Informatics in Primary Care):**
Journal of Innovation in Health Informatics (JoliHi -- https://hijournal.bcs.org) – house journal of the British Computer Society – BCS continues to welcome papers from working group members – we currently have a publication fee waiver.<2>

**References:**

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**Working Group: Security in Health Information Systems**

**Report for the Year June 2016 – May 2017**


**Chair:** (2015 – 2018)
Pekka Ruotsalainen, D.Sc (tech.), research professor emeritus, adjunct professor
University of Tampere, School of Information Sciences
Finland
Email: pekka.ruotsalainen@uta.fi

**Vice Chair:** (2015 – 2018)
Paulette Lacroix, HBScN, MPH, CMC, CIPP/C, CIPP/US
PC Lacroix Consulting Inc.
Canada
Email: placroix@placroix.ca
In conjunction with the MIE 2016 conference (28 August – 2 September 2016, Munich, Germany) the IMIA SiHiS WG organized together with EFMI WG SSE a Joint Workshop entitled, “Personal Health Data - Privacy Policy Harmonization and Global Enforcement”. This workshop addressed different privacy needs in protecting health information and the various reasons why these needs are not being addressed. Discussion included views on how to protect privacy within different contexts and how to enable a global privacy trust model that balances the use of personal health information with privacy protection requirements. SiHiS experts and WS participants also touched on current legislative inter-jurisdictional constraints relative to developing a global certification for health informatics professionals. The following members of SIHIS had expert presentations in the WS:

- Pekka RUOTSALAINEN (University of Tampere, Finland);
- Paulette Lacroix (PC Consulting Inc., BC, Canada)
- Eike-Henner KLUGE (University of Victoria, Canada)
- Bernd BLOBEL (University of Regensburg, Germany)
- Yukio KURIHARA (Kochi University, Japan)
- Tony Sahama (Queensland University of Technology, Australia)

For MEDINFO 2017 the SiHiS WG has prepared a WS presentation entitled, “Protecting Personal Health Information in a Global Environment: A Privacy Trust Model”. The proposal has been accepted by the scientific committee and the WS will be organized as a part of the MEDINFO 2017 program in Hangzhou, China.

An important development that will further enable the design of a global privacy trust certification model was the revision of the IMIA code of ethics by Eike-Henner Kluge and adopted by the Board in 2016. The MEDINFO 2017 WS will include a case study of how the code, when applied by the health informatics professional, contributes to the privacy protection of personal health information and how it may be applied within a global context. Discussion with the WS participants will serve to further explore operational issues and benefits/limitations of a global privacy trust model. Following the WS, the SiHiS Working Group will develop a white paper and proposal for a global privacy trust certification model.

Pekka Ruotsalainen and Paulette Lacroix
Chairs of WG SiHiS

Working Group: Smart Homes and Ambient Assisted living

Report for the Year June 2016 – May 2017

Website of the WG: (and other relevant sites)
15. **Background** – Brief description of the WG/SIG mission, vision, and objective

The aim of this working group is the study and promotion of research and development in the area of smart homes and ambient assisted living applications. A “smart home” is a residential setting equipped with a set of advanced electronics, sensors and digital services specifically designed for care delivery, remote monitoring, early detection of problems or emergency cases and promotion of residential safety and quality of life. Accordingly, we emphasize a shift in the focus of research and extension of activities beyond the clinical context to the day-to-day reality of patients and their relatives. Our mission is to promote the health-related and socio-economic benefits and affordances of IT such that individuals can live independently and safely in their preferred environment. Furthermore, we also foster a critical discussion on the dark sides of IT as data trails, which are collected by such systems and which we leave in our day-to-day life, are systematically analyzed and become a kind of “currency” for different parties involved.

16. **Achievement** - Events and projects conducted and publications completed


17. **Participation** - Engagement and participation in IMIA and health informatics events and activities
Participation in MIE/HEC 2016 by contributing with a workshop session
Participation in IMIA 2016

18. Outreach - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

- Presentation of working group at the uDay XV an Interreg (European Commission) funded workshop series for the promotion of Ambient Assisted Living in the “Lake of Constance Region” (Austria, Germany, Switzerland)

19. Collaboration - Working with other IMIA WG/SIGs or external organizations or institutions

- Collaboration with SFMI Sweden, SICS Sweden, and industry

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**Working Group: Social Media Working Group**

**Report for the Year June 2016 – May 2017**

**Website:** [http://imia-medinfo.org/wp/5089-2/](http://imia-medinfo.org/wp/5089-2/)

Board of the working group 2016-2018
Chairman : Dr. Mark Merolli
Swinburne University of Technology
Melbourne, Australia
mmerolli@swin.edu.au

Vice-chairman : Dr. Luis Fernandez-Luque
Qatar Computing Research Institute
Doha, Qatar

Secretary :
Dr. Elia Gabarron
Norwegian Centre for eHealth Research
University Hospital of North Norway
( elia.gabarron@ehealthresearch.no )

Dr. Margaret Hansen
School of Nursing & Health Professions, University of San Francisco
San Francisco, CA, USA ( mhansen@usfca.edu )
Status Report
Background

2. Memberships

3. Participation and outreach

4. Summary of Objectives and Achievements

Objectives 2016-2017

1

IMIA - Social Media Working Group Report of 2016/2017

1. Background

Over the last decade, social media tools and services are transforming health and medicine. The need for a more coordinated work in the area of health social media ignited the creation of a Web 2.0 Exploratory Taskforce at IMIA under the leadership of Dr. Peter Murray (IMIA-CEO) in 2007. The aim of the task force was to “bring together interested individuals from within and outside IMIA to explore the nature and potential of Web 2.0 applications, aiming at developing background materials and proposing specific lines of action for the IMIA Board and General Assembly”. The task force rapidly attracted the attention due to the active networking at several conferences and finally in 2012 the IMIA Social Media Working Group was accepted by the General Assembly of IMIA under the leadership of Chris Paton. In 2013, the leadership of the working group was renovated with the approval of the General Assembly in Medinfo 2013.

The Social Media Working Group (SMWG) aims to be IMIA’s vehicle for stakeholder engagement in Social Media, including the study of the drivers of change, barriers, facilitators, and policies necessary for the application of the various social media categories in the health domain, including 1) health care delivery, 2) health care professional education; 3) public health; 4) clinical and disaster medicine; and 5) research.

As described in this report the first term of the SMWG was to be consolidated as an active working group. During the last four years the SMWG have been actively involved producing research papers, workshops and panels in nearly all the leading conferences of medical informatics. Furthermore, it won the award of the best working group in IMIA in 2012 and 2013. In 2016, the IMIA Social Media Working group organized a track on Social Media and Participatory Health during Nursing Informatics 2016 (Geneve, Switzerland). Further, that same year we published a book (high downloaded) in Social Media and Participatory Health. This focus on participation and social media has been since the inception of the working group as a natural extension of what is called Health 2.0 and Medicine 2.0. For that reason a big decision in 2017 for the group has been the decision to change our name to “Participatory Health and Social Media”.

Over several months to May 2017, executive members of the working group met several times to discuss future directions of research and perpetuation of the work we have been doing as a group. With this in mind, three possible names were workshopped, including: participatory
health informatics, participatory health and social media, and social media and participatory health.

Over May/June 2017, all members of the working group were polled to generate discussion and vote. The result was a split vote of 10-10 in favor of ‘participatory health informatics’ and ‘participatory health and social media’. For this reason, we have elected to apply to the general assembly at Medinfo to change our name to ‘participatory health and social media’. We believe this is a bold forward thinking move, whilst staying true to the successful roots of the group.

2. Memberships

The IMIA SMWG has established several mechanism to get members. There is a mailing list with over 80 members that actively engaging in collaborations in the organizations of activities. We have also setup a Linkedin Group which has 206 members (annual growth of 20%).

3. Participation and outreach

With regards of active participation within the group the best metric are the outreach activities organized by the group:

- Social Media Panel in AMIA 20163 (ca. 40 participants)
- MOOC in FutureLearn about new technologies4 for healthy ageing (with sections about social media) and social media5 with over 5000 students from 85 countries.
- Two panels accepted in MEDINFO 2017
  - Unintended consequences of social media use
  - Social media use for knowledge translation

IMIA Collaboration

One of the objectives for the last year was to strengthen our collaboration with IMIA. To achieve that we collaborated in the following activities the previous 12 months:

- MEDINFO 2017
  - The chairman participated in the SPC
- IMIA Yearbook 2017
  - Co-Editor of the section “Consumer Health and Education”

Objectives 2017-2018

We do plan to discuss some updates in the leadership of the Working Group which will include some updates in the overall goals. However, the priority lines have been defined as follows:

- O1: reinforcement of cooperation among other working groups since social media and
participatory health are topics transversal to most working groups.

- O2: To organize own event in June 2018, targeting PhD students
- O3: To create tutorials and materials for public health officials in the use of social media for participatory health
- O4: Create whitepaper on the role of medical informatics and participatory health

Working Group: Standards in Health Care Informatics

Report for the Year June 2016 – May 2017

Website: http://imia-medinfo.org/wp/standards-in-health-care-informatics/

Working Group: Technology Assessment & Quality Development in Health Informatics

Report for the Year June 2016 – May 2017


(shared with/hosted by the EFMI WG Evaluation) on http://iig.umit.at/efmi/

Co-Chairs (2014- )
Professor Andrew Georgiou Centre for Health Systems & Safety Research Australian Institute of Health Innovation 6/75 Talavera Road Macquarie University 2109, Australia Email: andrew.georgiou@mq.edu.au

Associate Professor Farah Magrabi Centre for Health Informatics Australian Institute of Health Innovation 6/75 Talavera Road Macquarie University 2109, Australia Email: farah.magrabi@mq.edu.au

Working group members:

Elske Ammenwerth Director of the Institute for Health Information Systems, University for Health Sciences, Medical Informatics and Technology, Hall in Tyrol, Austria.

Nicolette de Keizer Professor, Department of Medical Informatics, Academic Medical Center, Amsterdam, The Netherlands
Synopsis of Working Group report

This report from the IMIA WG on Technology Assessment and Quality Development describes the WG’s record of international collaboration in the areas of education, performance management, evidence-based health informatics and safety and quality. These activities reinforce important developments in the WG’s networks and participation including with: IMIA working groups (e.g., European Federation of Medical Informatics Working Groups) and regional members of IMIA (e.g., Asia Pacific Association of Medical Informatics and the American Medical Informatics Association). Key areas of success outlined in this report include: i) the publication of a book with IOS Press on Evidence-Based Health Informatics (edited by Ammenwerth E and Rigby M) as part of a major international collaboration involving leading evidence-based health informatics researchers, practitioners and IMIA, EFMI and AMIA working groups; and ii) the preparation of a position paper to the IMIA Yearbook on improving evaluation to address the unintended consequences of health information technology.

1. Background – Brief description of the WG/SIG mission, vision, and objective

The strategic mission of the working group is:

- To promote the necessity of a systematic evaluation of health information systems during their whole life cycle as a precondition for the better support of patient care.
- To promote theory and practice of evaluation of health information systems, taking into account approaches from a variety of scientific fields.
- To develop and promote methods and tools to support the systematic evaluation of the effects of health information systems on structure, process and outcome of patient care, and to give feedback to system builders how to alter their systems to improve effectiveness and to avoid negative effects.

We are convinced that the evaluation of health information systems demands a combined, multi-disciplinary (or even trans-disciplinary) as well as multi-method approach. Therefore, the aims of the Working Group (WG) are:

- to foster discussion between experts from informatics, medical informatics, economics, health care, health services research, clinical epidemiology, biometry, psychology, sociology, ethnography, organizational development, operations research and other evaluation fields, on an international level, and to encourage exchange on methodological issues between researchers from different traditions;
- to offer an opportunity to share knowledge with the aim of obtaining profitable cross-fertilization among different fields of expertise and especially between quantitative and qualitative research;
- to promote a combined research agenda to develop frameworks and toolkits for information systems evaluation, offering guidelines for an adequate combination of evaluation methods and tools;
- to discuss and clarify the networking needs for long-term evaluation research in medical informatics, and to promote combined research proposals at an international level.
- to raise awareness that health IT systems are not automatically safe or optimal, and indeed can engender risks, and therefore evaluation is an essential activity to protect patient safety and stimulate optimisation.
- to seek to engender and instil a culture of evidence-based health IT policy and implementation as an ethical essential.

2. **Achievement** - Events and projects conducted and publications completed

- The IMIA WG undertook a significant working consultation and collaboration to submit the following contribution to the IMIA Yearbook:


- Working group members collaborated to write a review paper for the Korean Informatics Society.


- Working group members were involved in the following workshops and panels for **MIE 2017 (Manchester, UK):**

  **Scott P, Wyatt J, Evans D, Mukherjee M, Dunscombe R.** Biomedical informatics: Far more than Big Data for research. (Workshop)


3. **Participation**

- WG member Philip Scott served on the Scientific Programme Committee for MIE 2017 and edited the abstracts for publication: Scott et al., Informatics for Health 2017: Advancing both science and practice. Journal of Innovation in Health Informatics, 24(1).

- WG member Prof Georgiou is contributing to the Royal College of Pathologists of Australia, Pathology Information, Terminology and Units Standardisation (PITUS) program, which will make a major international contribution to the improvements in the recording, decision support, communication and analysis of pathology laboratory reports.
WG member A/Prof Magrabi was invited to give a keynote address on safety of health IT at the 5th Scandinavian Conference on System & Software Safety in May 2017. She also gave a webinar on patient safety in the digital health era to the Healthcare Information and Management Systems Society (HIMSS) Asia Pac in March 2017.

WG members Prof. Talmon and A/Prof Magrabi served as guest editors for a special focus issue of Journal of the American Medical Informatics Association on the Safety of Health IT which was published in March 2017.

WG member Dr Hyppönen is leading the Nordic eHealth research network under the Nordic Council of Ministers, collaborating with the OECD and WHO in developing and testing eHealth indicators.

Members of the Working Group are (in association with several IMIA WGs) contributing to the organization of the Context Sensitive Health Informatics satellite conference at Medinfo 2017 in Hong Kong.

The working group continues its close collaboration with the EFMI Working Group on Evaluation, through joint publications, webinars, workshops and tutorials at international conferences. The working group also started to discuss closer collaboration with the AMIA Working Group on Evaluation.

Prof. Jan Talmon said goodbye to the WG in March 2017. The working group is very grateful to Jan as he was one of our founding fathers when he participated in the ESF workshop in Innsbruck and served as chair from 2000 to 2007. Under his leadership the WG developed the guidelines STARE-HI and GEP-HI. Both guidelines are frequently cited and were adopted by major Medical Informatics journals as a standard for reporting on health informatics evaluation studies. He is a co-author on more than 24 IMIA/EFMI working group publications in the last 13 years (see https://iig.umit.at/efmi/publications.htm).

4. Outreach

During 2016-2017 the WG continued to expand its network and the scope of its work. In the course of this year the WG has established strong connections with the Australian College of Health Informatics, the Indian Association of Medical Informatics and Asia Pacific Association of Medical Informatics.

5. Collaboration

The working group continues its close collaboration with the EFMI Working Group on Evaluation, through joint publications, webinars, workshops and tutorials at international conferences. The working group also started to discuss closer collaboration with the AMIA Working Group on Evaluation.

The working group has maintained a strong level of collaboration with the AMIA Evaluation Working Group, as evidenced by collaborative efforts.

Working Group meetings (minuted teleconferences)
11 October 2016
21 December 2016
Working Group: Telehealth

Report for the Year June 2016 – May 2017

Website of the WG: http://imia-medinfo.org/wp/telehealth/

Email forum IMIA_tele@googlegroups.com

-any IMIA affiliated Member can join – send a request to gogia7@gmail.com or to moderator through Google groups

Chair (2016 - 2019)

Name SHASHI BHUSHAN GOGIA
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Other Affiliations: Founder Member of IAHSL Imm. Past President APAMI, (Asia Pacific Association for Medical Informatics), Member of MHD 17 – Bureau of Indian Standards (BIS) – and participatory member of ISO TC 215 as well as IEC 62A on Healthcare Informatics standards

Vice-Chair (2016 - 2019)

Name ANTHONY MAEDER
Affiliation and address: Premier’s Research and Industry Fund South Australian Research Fellow Professor of Digital Health Systems & Co-Director Flinders Digital Health Research Centre, School of Health Sciences, Flinders University Adelaide SA, Australia
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1. Background – Brief description of the WG/SIG mission, vision, and objective
The Telehealth Working Group aims to be IMIA’s vehicle for stakeholder for advocacy and capacity building to use Informatics towards enabling as well as providing quality healthcare to areas outside the precinct of medical establishment.

The IMIA Telehealth WG hopes to engage members from the international health informatics community, across sectors, to identify, explore, collaborate, and disseminate research on the use of technology to foster Telehealth. The main focus areas we are working in are

A) Low resource areas - under which include developing countries as well as unreached populations as well as tribal communities even in Developed societies.
B) Community based services - important both for service delivery as well as data collection for health planning.

C) Home based care and personalized medicine.

The current team took over in 2010

2. **Past Achievements** - Events and projects conducted and publications completed
   c) Panel in Medinfo 2013 - Copenhagen the Working Group held a workshop on *Working Solutions for Telehealth in Low Resource Areas* at Medinfo 2013 Copenhagen. – published in proceedings
   d) Gogia SB, Maeder A, Meher S, Mars M, Hartvigsen, Basu A. Abott, P *Unintended Consequences of Tele Health usage and Approaches for their Solution*; Yearbook of Medical Informatics 2016; 11(1) :41-46

**Major current activity in the past year**

a. Our SIG has been asked to compile a book titled *Fundamentals of Telehealth and Telemedicine* by noted international publisher Elseiver This book is currently underway and targeted for global release by end 2018 It shall explain in simple details to lay practitioners, undergraduates It includes simple guidelines for those who are seeking emergency healthcare support in remote areas.

   This book has had very active online discussions between the proposed authors. During the preparation of the proposal, curriculum as well as for incorporating the modifications as suggested by the reviewers. All authors are being or have been made members of the WG – with a resultant rise in number of members.

   a. Participation in the Panel titled - *mHealth and eHealth for Patient Engagement and Self-Efficacy 2016 during HEC Munich*, August 2016. Panelists were S B Gogia (Moderator), Sriram Iyengar, Gunnar Hartvigsen, Magdala De Araujo Novaes and A U Jai Ganesh
   b. Two workshops /panels accepted for Medinfo 2017:
      i. *Regulation of Tele-Health in Emerging Economies: Qua Vadis ?* Moderated by Oommen John
      ii. *Preparing the Next Generation for Information and Communications Technology enabled Healthcare* Moderated by S B Gogia –

      *We will try to get inputs from IMIA members and Medinfo attendees on the curriculum of our planned book and also hope to increase membership of the WG through this.*

c. **Other WG-related activities by group members:**
   i. Prof Gunnar Hartvigsen:
      1. “Challenges in telemedicine and eHealth: Lessons learned from 25 years with telemedicine in Northern Norway”, keynote at NUNA MED 2016, Telemdicine session (1-3 October 2016, Nuuk, Greenland)
      2. “25 лет истории развития телемедицины на севере Норвегии” (“25 years history of the development of telemedicine in northern Norway”) Keynote (2,5 hours) at 2nd International scientific and Practical Conference “Arctic Telemedicine” (24-25 November 2016, Naryan-Mar, Nenets AO) (Given in English)
4. “Lessons learned from 25 years with telemedicine in Northern Norway”. 2,5 hours tutorial at eHealth Innovation Days 2016 at Flensburg University of Applied Sciences (FUAS) (8–9. september, 2016, Flensburg, Germany)
5. "Telemedicine and e-health challenges: Lessons learned from 25 year with telemedicine in Northern Norway", 3 hours tutorial for health care personnel at Dronning Ingrids Hospital, 4. October, 2016 (Nuuk, Greenland)

Some other Key Members who are contributing (Those who joined in the current year are Highlighted)

1. Prof Gunnar Hartvigsen gunnar.hartvigsen@uit.no Norwegian Centre for E-health Research & University of Tromso, NORWAY
2. Prof Maurice Mars -University of KwaZulu-Natal, Durban, South Africa, Program Co-Chair Global Telehealth meeting 2014 Durban SOUTH AFRICA
3. Mr Sushil Meher s_meher@hotmail.com, Dept of Computer Studiies, All India Institute of Medical Sciences, New Delhi, INDIA
4. Dr Arindam Basu arin.basu@gmail.com, University of Canterbury, Christchurch , NEW ZEALAND
5. Dr Sriram Iyengar School of Biomedical Informatics, University of Texas, Houston, USA
6. Magadala De Araujo Novaes Telehealth Center, Clinics Hospital, Federal University of Pernambuco, Recife, BRAZIL
7. A U Jai Ganesh Sri Sathya Sai Central Trust, Prasanthi Nilayam, Andhra Pradesh, INDIA,
8. Alvin Marcello PHILLIPINES
9. Patricia Abbot, Michigan USA
10. Mowafa Househ Saudi Arabia
11. Dr. Susheel Oommen John India
12. Dr Yogi Kannasingam, Australia
14. Dr Arjun Kalyanpur India
15. Dr. S Thanga Prabhu, India

3. Participation - Engagement and participation in IMIA and health informatics events and activities

4. Outreach - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media

5. Collaboration - Working with other IMIA WG/SIGs or external organizations or institutions
Working Group: Wearable Sensors

Report for the Year June 2016 – May 2017

Website of the WG:  http://www.wearable-sensors.org

Chair (2016 - 2019)
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Vice-Chair (2014 - 2017)
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20. Background – Brief description of the WG/SIG mission, vision, and objective

The WG aims to promote medical informatics research in the area of wearable sensor technology in healthcare by providing a joint comprehensive platform for information exchange and scientific collaboration. The group aims to attract experts from different areas of expertise, such as medical informatics, biomedical engineering, nursing and medicine.

The WG addresses the following areas of research:

- **sensor application** and research areas in healthcare: diagnostics and therapeutics, in terms of primary, secondary and tertiary prevention
- **methods for sensor data analysis**, with a special focus on the analysis of multimodal data
- **integration of sensor data** resp. extracted information with health information systems and decision support systems to achieve individualization of diagnostics
21. **Achievement - Events and projects conducted and publications completed**

- Members of the WG contributed to the following publication that is in accordance with the goals of the WG and formulates recommendations regarding the use of wearable accelerometers:
- WG organized a workshop entitled “Wearable and Ambient Sensor Technology in Geriatric Medicine and Rehabilitation – examples, challenges and lessons learned” at the HEC2016 conference in Munich (August 28-September 2, 2016)
  - Michael MARSCHOLLEK, Adrian DERUNGS, Birgit SAALFELD, Nico JAEHNERRADEN, Nigel LOVELL, Stephen REDMOND. Wearable and Ambient Sensor Technology in Geriatric Medicine and Rehabilitation – examples, challenges and lessons learned
- WG co-organized a workshop entitled “Wearable sensors in large cohort studies – experiences and future directions” at the HEC2016 conference in Munich (August 28-September 2, 2016)
- WG had a business meeting during HEC2016 in Munich, election of a new WG chair
- active promotion of the WG and its activities on all above-mentioned and further events

22. **Participation - Engagement and participation in IMIA and health informatics events and activities**

Please see above

23. **Outreach - Recruitment and engagement of new members and target communities, publicity and representation at major events and/or on social media**

- Current WG members: 24
- Current mailing list subscribers: 137 (June 14th, 2017)
- updates of the WG’s website (domain: wearable-sensors.org) and postings to the mailing list
- creation of a new private Linked-In Group for the workgroup

24. **Collaboration - Working with other IMIA WG/SIGs or external organisations or institutions**
- WG chairs have established contact with the IEEE EMBS Wearable Biomedical Sensors and Systems Technical Committee