

The International Academy of Health Sciences Informatics: 2021 Update

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Summary

Objectives: To summarize the activities of the International Academy of Health Sciences Informatics (IAHSI) in 2021 and welcome its 2021 Class of Fellows.

Methods: Report on governance, strategic directions, newly elected fellows, plenary meetings, and other activities of the Academy.

Results: As in 2020, all of the Academy's activities were carried out virtually due to the COVID-19 pandemic. In 2021, new Board members were elected. Strategic activities in data standards and interoperability and in mentorship moved forward. A new class of 26 Fellows was elected, bringing the total membership of the Academy to 204 Fellows from all regions of the world. In

addition, a virtual plenary meeting was held.

Conclusions: The Academy has continued to pursue its role as the honorific society globally for biomedical and health informatics. Expansion of strategic activities and membership will continue moving forward.

Keywords

Biomedical and Health Informatics; Medical Informatics; Health informatics; International Academy of Health Sciences Informatics; International Medical Informatics Association

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Introduction

The International Academy of Health Sciences Informatics¹ (IAHSI, also known as the Academy) was established in 2017 under the auspices of the International Medical Informatics Association² (IMIA). The Acad-

emy aims to nominate and elect those whose contributions in biomedical and health informatics are recognized internationally. Its goal is to promote the dissemination of knowledge and best practices, foster new ideas, and encourage worldwide collaboration and sharing of expertise and resources.

The first vision for the Academy was published by Lehmann et al. in 2017 [1]. A further detailed view was set forth by Haux in

2018, who became the first elected President [2]. A strategy and focus areas process was published in 2020 [3]. The President reported on the activities in 2020 [4] and 2021 [5]. The Academy is governed by By-Laws³, and a process of nominating and electing new Fellows each year has been established and followed⁴.

The Academy held its first meeting, which included the induction of 118 inaugural fellows, in Gothenburg, Sweden in April, 2018. The Academy held its first Plenary in Lyon, France in August, 2019, where the By-Laws were approved. At that meeting, a new class of 26 Academy Fellows was inducted. The Lyon meeting also led to the development of strategy and focus areas for the Academy.

The COVID-19 pandemic led to a shift in activities for 2020. Despite the pandemic, the work of the Academy continued in 2020 and 2021. This report describes the activities in 2021.

³ <https://imia-medinfo.org/wp/wp-content/uploads/2018/08/IAHSI-Bylaws-approved-updated-January-2022.pdf>

⁴ <https://imia-medinfo.org/wp/iahsi-nomination-process-for-new-fellows/>

¹ <https://imia-medinfo.org/wp/iahsi/>

² <https://imia-medinfo.org/>

Governance

The Academy elected its first Board of Directors, including its first President, in 2019. The 2021 leadership of the Academy included:

- William Hersh, President (2020-2022);
- Reinhold Haux, Past President (2020-2022);
- Paula Otero, Secretary (2019-2022);
- Michio Kimura, Treasurer (2019-2021);
- Marion Ball, Member-at-Large (2019-2022);
- Don Detmer, Member-at-Large (2020-2023);
- Sabine Koch, IMIA President (ex officio);
- Elaine Huesing, CEO, IMIA (ex officio).

In 2021, elections resulted in a new President-Elect (Kaija K. Saranto) and Treasurer

(Graham Wright). Dr. Saranto will assume the Presidency at the end of 2022, when Dr. Hersh will become the Past President and Dr. Haux's service to the Board will end. Also in 2021, Jack Li became President of IMIA and replaced Sabine Koch as an ex officio Board member.

Strategic Activities

An important function of honorific societies is to provide scientific leadership and advocacy for its field. Now that the Academy has been established, the focus of its work has shifted from supporting activities to pursuing strategic directions. The initial strategic directions were approved in 2019 and published in 2020, and are summarized in Figure 1 [3].

In 2021, the Academy aimed to build on previous visions and planning. A key principle was to collaborate with IMIA and others, avoiding duplication of effort. Starting with Dr. Hersh assuming the Presidency, Fellows began with a focus on the high-priority activities of the initial strategic process. At the 2019 Plenary, three Task Forces had been established to focus on what were deemed the most important activities for the Academy. In 2020, these were renamed to Panels to reflect the longer-term nature of their work.

The most active panel has been the one on Data Standards and Interoperability, co-chaired by Diego Kamiker and William (Ed) Hammond. Their major activity has been the publication of podcasts, with two produced in 2021. These are available through

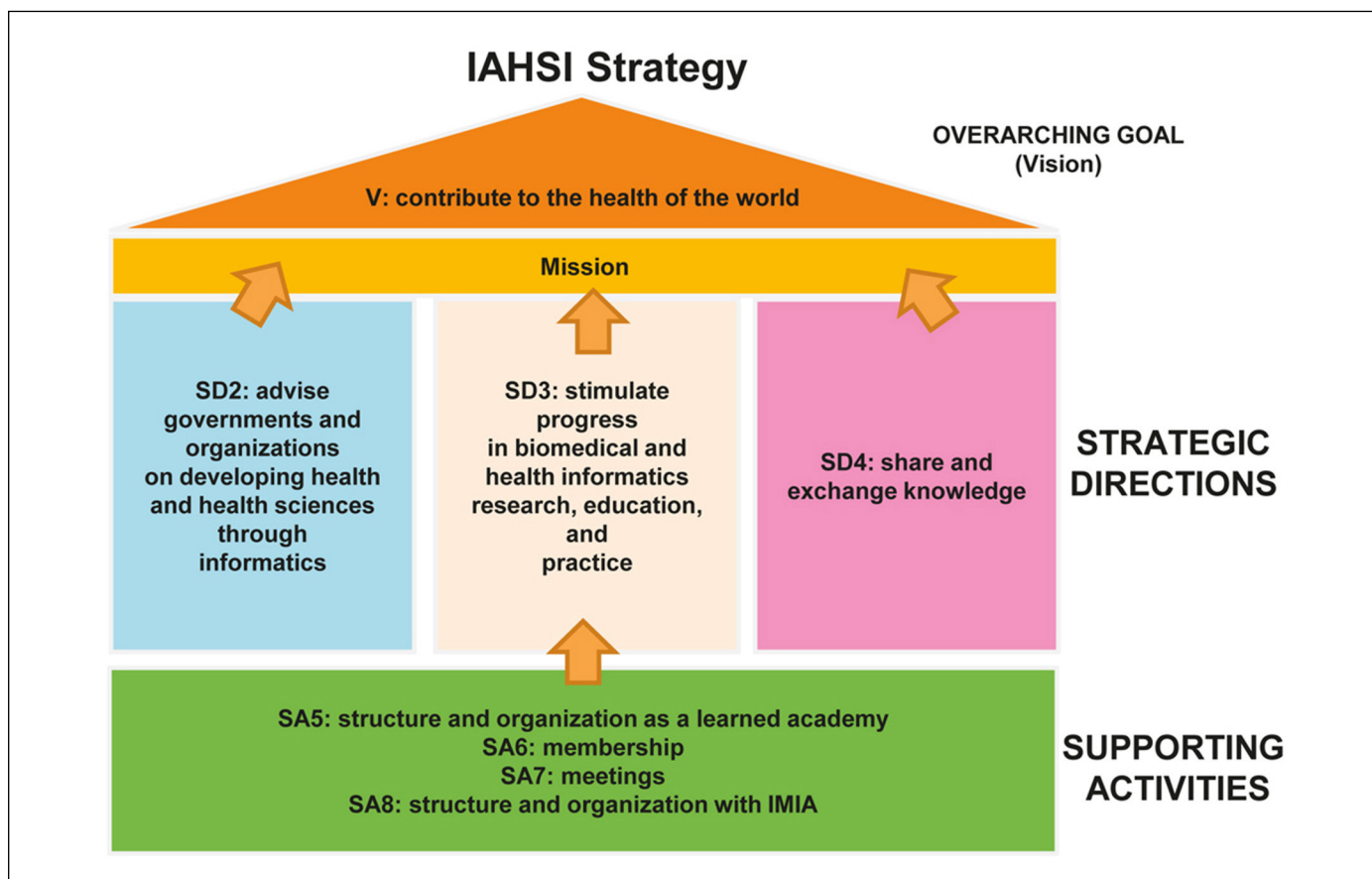


Fig. 1 Strategic directions for the Academy, from [3].

Apple Podcast⁵ and Spotify⁶. Additional panels have been proposed for artificial intelligence and computational knowledge, but there is no work to report. Another panel was formed in late 2021 around mentoring, with Martin Were and Boonchai Kijsanayotin volunteering to serve as Co-Chairs. They will aim in 2022 to bring together Fellows to focus on mentoring individuals and associations in the field, especially those from less economically developed countries that lack an established national infrastructure for biomedical and health informatics.

Election of 2021 Fellows

In 2021, 26 new Fellows were elected, who are listed in Table 1. The distribution of Fellows by region, year elected, and gender are shown in Table 2.

Plenary Meetings

An important activity of the Academy is its Plenary Meetings. In 2021, a single virtual Plenary was held on 18 November. The meeting commenced with a tribute to those in memoriam during the past year: Brenda Faye (1949-2021), John Fox (1948-2021), Reed Gardner (1937-2020), Hans Peterson (1928-2021), Thomas Piemme (1932-2021), and Werner Schneider (1939-2021). After a short business meeting, a panel discussion was held on the topic, *Translational Artificial Intelligence: What Will It Take to Get Basic Research into Clinical Use?* The session was organized and moderated by the Academy President. Panel speakers and their topics included:

- Susanne Bakken – Scientific Publication and Diversity, Equity, & Inclusion: JAMIA Example
- John Holmes – Bias and Fairness: Threats to the integrity of inferences made from data using machine learning
- Enrico Coiera – Quality, reproducibility, and transportability of AI research
- Jack Li – AI to Improve Medication Safety
- Brad Malin – Balancing Privacy and Utility

⁵ <https://podcasts.apple.com/us/podcast/exploring-healthcare-interoperability/id1570910011>

⁶ <https://open.spotify.com/show/4dqlDz8b7eZKjxNQyYcoFn>

The plans for the type of Plenary to be held in 2022 are uncertain, pending the progression of the COVID-19 pandemic. Academy Board members are hopeful that an in-person plenary can take place at Medinfo 2023, which is currently scheduled to be held from 7-12 July in Sydney, Australia.

Table 1 Academy Fellows elected in 2021 and their home regions.

Alhuwail, Dari – IMIA MENAHIA Region
An, Ning – IMIA APAMI Region
Biondich, Paul G. – IMIA North America Region
Duda, Stephany N. – IMIA North America Region
Fernandez – Luque, Luis – IMIA EFMI Region
Gong, Yang – IMIA North America Region
Jayatilleke, Achala Upendra – IMIA APAMI Region
Johnson, Kevin B. – IMIA North America Region
Keravnou-Papailiou, Elpidia – IMIA EFMI Region
Kim, Il Kon – IMIA APAMI Region
Kinnunen, Ulla-Mari – IMIA EFMI Region
Koppel, Ross J. – IMIA North America Region
Liu, Hongfang – IMIA North America Region
Magrabi, Farah – IMIA APAMI Region
Moore, Jason – IMIA North America Region
Nakashima, Naoki – IMIA APAMI Region
Oluoch, Tom – IMIA HELINA Region
Payne, Philip R.O. – IMIA North America Region
Riaño, David – IMIA EFMI Region
Sarbadhikari, Suptendra Nath – IMIA APAMI Region
Schulz, Stefan – IMIA EFMI Region
Shachak, Aviv – IMIA North America Region
Stoicu-Tivadar, Lacramioara – IMIA EFMI Region
Takabayashi, Katsuhiko – IMIA APAMI Region
Winter, Alfred – IMIA EFMI Region
Zhu, Xinxin – IMIA North America Region

Table 2 Distribution of Academy Fellows by region, year elected, and gender.

Region	Total	2017	2019	2020	2021	F	M
APAMI	39	19	4	9	7	13	26
EFMI	62	42	10	3	7	17	45
HELINA	8	4	1	2	1	1	7
IMIA LAC	15	10	0	5	0	6	9
MENAHIA	8	5	0	2	1	1	7
N. America	72	38	11	13	10	20	52
Total	204	118	26	34	26	58	146

Other Activities

The Academy was involved in other activities in 2021. Many Academy Fellows made contributions to the IMIA History Book [6], which was published in 2021. The volume was edited by Academy Fellows Casimir Kulikowski, George Mihalas, Robert Greenes, Hyeoun-Ae Park, and Yalerio Yacubsohn.

The Academy also took part in IMIA activities, including the virtual Medinfo 2021 and the 2021 General Assembly. The Academy President also traveled to Germany in September, 2021 to represent the Academy at the retirement ceremony of Dr. Haux at Technische Universität Braunschweig in Braunschweig, Germany (see Figure 2).

Another activity of the Academy actually took place in early 2022 but is important enough to be mentioned here. The Academy Board endorsed the statement of IMIA and the European Federation of Medical Informatics supporting the Ukrainian Society of Medical Informatics and making an appeal for peace from the hostilities of the government of Russia⁷.

Future Directions

The Academy continues to be an important part of IMIA and the global biomedical and health informatics field. While the pandemic has impacted activities, Academy

⁷ <https://imia-medinfo.org/wp/solidarity-message-to-ukrainian-society-of-medical-informatics-appeal-for-peace/>



Fig. 2 Academy Past President Reinhold Haux (left) and William Hersh (right) at Dr. Haux's retirement ceremony in Braunschweig, Germany in September 2021.

Fellows are still global informatics leaders. In 2022, an election of new Fellows and Board members, along with a Plenary, will take place. The panels will continue their activities.

Personal Note from the President

It is a great honor to serve as President of the Academy, and to continue its development forward. As one who has always

enjoyed international travel and interaction with colleagues across the world, having to serve as President during the pandemic has required a reset of personal expectations. But I am confident that the Academy will continue to provide leadership and value to the field of biomedical and health informatics.

Acknowledgements

The activities of the Academy would not be possible without the executive support of Ms. Elaine Huesing. The Board members have enthusiastically participated in virtual

bi-monthly meetings at odd hours due to time zone differences. We also appreciate Academy Fellows who have provided leadership in the panels and participated in the Plenary sessions.

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