



IMIA Student and Emerging Professionals SG3 2020 Report

presented as part of the IMIA VP WG & SIGs report:

- IMIA Board Meeting, November 22, 2020
- IMIA General Assembly Meeting, December 6, 2020

Laura-Maria Peltonen, Co-Chair (2019 - 2021)

Max Topaz, Co-Chair (2019 - 2021)

Vice Chairs (2019 - 2021)

Charlene Ronquillo

Dari Alhuwail

James Mitchell

Website: <https://imia-medinfo.org/wp/student-and-emerging-professionals-special-interest-group-sep-sig/>

For the 2020 report please provide details on the following:

(Due to the COVID -19 pandemic, IMIA acknowledges that many functions were cancelled, delayed and disrupted from January 2020 to the end of June 2020)

- **Brief Background- current mandate, historical background, etc.**

1. Group's goals & objectives

The Students and Emerging Professionals Special Interest Group (IMIA SEP SIG) is intended for students and emerging professionals from different levels in all disciplines interested in health informatics around the world. The goal of the group is to provide its members with a platform for networking and professional development opportunities in the areas of practice, research and policy. The group prepares students and emerging professionals for active engagement in the IMIA community and Working Groups. The group fosters interdisciplinary connections and collaborations, ingrained in the nature of health informatics.

This SIG was established in 2019. The SEP group spans across several content areas that are relevant to students and emerging professionals, such as professional development, developing a research trajectory, international research networking, support with designing and conducting

research and other relevant topics identified by the group members. Our annual calendar of the group is presented in Figure 1.

1.1 Vision

- To create a global professional and academic network for students and emerging professionals interested in health informatics
- To advance research, education and practice worldwide to support and promote the development of health informatics.

1.2 Mission

- To advance the science and practice of health informatics through global collaboration and local partnerships
- An ideal participant in the group is a student or emerging professional who is interested in health informatics and learning about IMIA.

1.3 Membership

- currently about 200 general members
- 15 society representatives –Slovenia, New Zealand, USA, Norway, Brazil, Finland, Mexico, Switzerland, Taiwan, United Kingdom, Philippines, Kuwait, Korea, Pakistan and Canada.

1.4 A core activity of the group is to support members in active international research collaboration

- Any general member of the SEP can suggest and lead a SEP research project.
- Projects follow and include an explicit statement on ethical guidelines (WHO, national ethical guidelines).
- There is no limit to the number of individuals involved in SEP projects.
- Work is shared mutually in projects.
- Executive members provide guidance to junior researchers related to SEP projects upon request.
- Authorship is agreed upon at the start of the manuscript writing process.

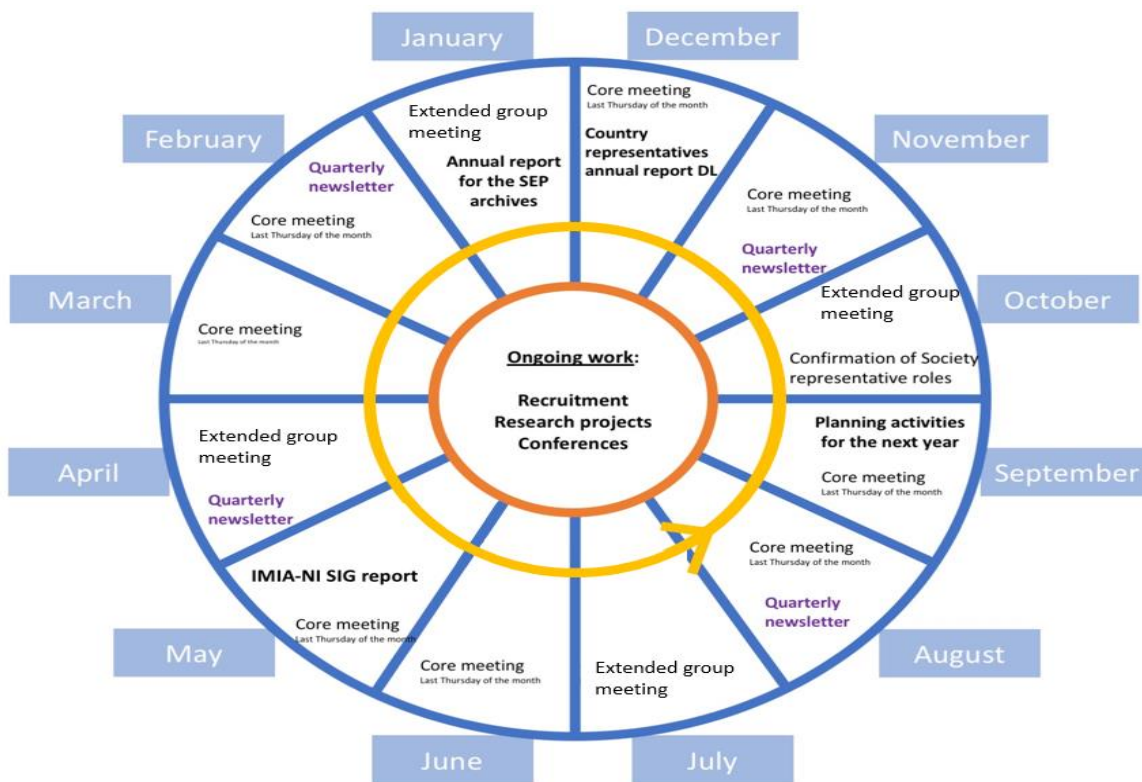


Figure 1. Annual calendar of SEP group activities

2. Achievements - Events and projects conducted and publications completed

2.1 COVID Health Information Technology Survey

In the beginning of the COVID-19 pandemic (May 2020), our Students and Emerging Professionals Group launched an international survey aimed to collect, synthesize and share the experiences of health informaticians working globally in the health sector during COVID-19 pandemic. The overarching purpose of this survey was to develop insights into the ways in which health information technology is used during the COVID-19 pandemic.

One of the group members, Charlene Ronquillo (SEP Vice-Chair) received a grant for conducting the survey (Ryerson FCS COVID-19 Rapid Response Research Grant, Ryerson University, Toronto, Canada). Overall, we received almost 80+ responses from international health informaticians to date, from more than 10 countries. A summary of the survey findings is presented online (<http://covidhitimpact.com>) and we have several outputs being reviewed or already presented (indicated below). We also have a manuscript for publication in a peer-reviewed journal, currently in development.

- M Topaz, L Peltonen (first co-authors), J Mitchell, D Alhuwail, S Barakati, A Lewis, H Moen, S Pavan Kumar Veeranki, L Block, T Risling, C Ronquillo. (2020). Key healthcare information technologies during COVID-19 pandemic: an international survey. *Chapter submitted for IMIA yearbook.*

2.2 Our subgroup “SEP in Nursing Informatics” activities

2.2.1 Survey on emergency remote learning in nursing education during COVID

This survey is entitled “Emergency remote learning in nursing education during the COVID-19 pandemic”. The goal of the survey is to increase worldwide understanding of the state of nursing education during pandemic. This study has IRB approval by HSUIRB in South Korea (Hoseo University Institutional Review Boards, no.1041231-200825-HR-114-01). [The survey is being currently distributed](#) in 7 languages including English, Korean, Spanish, Portugesse, Traditional Chinese, Arabic and Bahasa. The following individuals are involved in this survey development and distribution:

- Eunjoo Jeon (South Korea) yesredpig@gmail.com;
- Jisan Lee (South Korea) saan2mari@gmail.com;
- Laura-Maria Peltonen (Finland) laura-maria.peltonen@utu.fi;
- Lori Block (Canada) Lori.block@ubc.ac;
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- Raji Nibber (Canada) raji.nibber@alumni.ubc.ca;
- Lisiane Pruinelli (Brazil, USA) pruin001@umn.edu;
- Erika Lozada Perezmitre (Mexico) erika.lperezmitre@correo.buap.mx;
- Jannie Sommer (Argentina) janine.sommer@hospitalitaliano.org.ar;
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- Alaa Abd-Alrazaq (Qatar) aabdalrazaq@hbku.edu.qa;
- Ying-Li Lee (Taiwan) yingly.lee@gmail.com;
- Shao-Hui Shu (Taiwan) shaohui.shu@gmail.com

2.2.2 Follow-up survey on trends in nursing informatics

The survey is a follow-up study from 2014 that aims to describe trends in nursing informatics research and practice identified by nursing informatics professionals and experts. Ethical approval was obtained from the Ethics Committee of the University of Turku in Finland (49/2018). Data were collected with snowball sampling. The survey had 455 responses from 26 countries. We now have one manuscript accepted for publication in a peer-reviewed journal and more will follow.

- Paper: Laura-Maria PELTONEN^{a,1}, Raji NIBBER^b, Lori BLOCK^c, Maxim TOPAZ^d, Charlene RONQUILLO^e, Erika LOZADA PEREZMITRE^f, Adrienne LEWIS^g, Dari ALHUWAIL^h, Samira ALIⁱ, Mattias GEORGSSON^j, Eunjoo JEON^k, Jude L. TAYABEN^l, Ying-Li LEE^m, Chiu-Hsiang KUOⁿ, Shao-Hui SHUⁿ, Hanjen HSU^o, Tasneem ISLAM^p, Janine SOMMER^q, Raymond F.R. SARMIENTO^r, Hyunggu JUNG^s, Gabrielle J. ELER^t, Martha K. BADGER^u, Rui ZHAO^v, Tong ZHOU^w, Haley DEFOREST^x, Suleman ATIQUÉ^y, and Lisiane PRUINELLI^z. Nursing informatics research trends: findings from an international survey. Proceedings of NI2021.

2.2.3 Scoping review on eLearning in Teaching Clinical Nursing Skills

Members from the SEP Nursing Informatics sub-group are also working together on a scoping review on the “Effectiveness of eLearning in Teaching Clinical Nursing Skills”. The group has completed the abstract review process and are now moving forward on full-article data extraction.

The following group members are collaborating on that: Henrique Yoshikazu Shishido, Rosana Cláudia de Assunção, Rejane Kiyomi Furuya, Charlene Ronquillo, Lori Block, Laura-Maria Peltonen, Rok Drnovšek, James Valenciano, Gabrielle Jacklin Eler.

2.2.4 Journal article on nursing informatics during COVID

Members of our group contributed to a recently published paper: **Atique, S.**, Bautista, J. R., **Block, L. J.**, Lee, J. J. J., **Lozada-Perezmitre, E.**, **Nibber, R.**, ... & Thilo, F. J. (2020). A nursing informatics response to COVID-19: perspectives from five regions of the world. *Journal of Advanced Nursing*.

2.2.5 International workshop on Ethical, Legal, and Social Implications of AI

Members of our group obtained funding to develop and host an international workshop entitled: “Artificial Intelligence for Nursing: Ethical, Legal, and Social Implications” at the Brocher Foundation (Geneva, Switzerland) in October 2019, attended by international leaders in health informatics, nursing, ethics, engineering, computer science, philosophy and AI, AI and legal considerations, and global policy implications (WHO). Details about the workshop can be found on the Brocher Foundation website: <https://www.brocher.ch/en/events/380/artificial-intelligence-for-nursing-ethical-legal-and-social-implications>. The group are currently finalizing a manuscript for publication in a peer-reviewed nursing journal.

2.2.6 Scoping review on AI in nursing

Members of the group are working on a review on artificial intelligence in Nursing. The aim of this study is to describe the current and future Ethical, Legal and Social Implications of AI in nursing. This project has received funding for open access costs by the Brocher Foundation (Geneva, Switzerland). Specific research questions to be answered are: (1) What is AI in nursing?; (2) What is the quality of evidence of the work on AI in Nursing?; and (3) What are the future ethical, legal and social implications of AI in nursing? The search resulted in 4,672 articles. The full text selection process is now ongoing. We aim to submit the manuscript by the end of the year.

3. Describe WG/SIG Participation - Engagement and participation in IMIA and health informatics events and activities in the past year

3.1 Our group contributed content and helped review the ongoing project “Evidence-based health informatics as the foundation for the COVID-19 response: a joint call for action to transform hopes and hypes into realities” overseen by Luis Fernandez-Luque, IMIA’s VP for WG/SIG.

3.2 Our group had a productive dialog with IMIA leadership (Luis Fernandez-Luque & Elaine Huesing) on identifying areas in which IMIA WG/SIG can be more engaging for students and emerging professionals. The specific recommendations from our group were as follows:

“Here are a couple of suggestions members of our group identified as key activities and ideas needed to **create a more vibrant and interactive environment for IMIA working groups and special interest groups and engage new members**. Some of these activities are being currently implemented by Luis but we wanted to share our thoughts

regardless. These suggestions have the potential to improve involvement for new members, increase collaborations and advance productivity.

1. *How can new members be actively involved?* Examine ways in which new members (students or emerging professionals) can participate and contribute to your working group activities. Some working groups have activities that are appropriate for new members. These activities engage new members and have a growth trajectory for further, longstanding active engagement with the working group. If your working group doesn't have specific roles for new members, please identify other ways enabling involvement, continuity and growth. Some specific recommendations include:

- Develop and encourage new members to take on specific roles within the group (e.g. leadership board, event/time-bound positions, ... etc)
- Engage new members in co-organizing conferences/events
- Have a contact person who can provide information about the groups and possible ways of engaging with the group
- Each WG/SIG should have an SEP representative

2. *Where can we all interact?* Working and special interest groups within IMIA need an interactive platform (e.g., forum) that enable interaction between group members. Such a platform can improve the visibility of activities conducted by the working and special interest groups, and potentially streamline tasks, like recruiting and engaging new members. Some specific recommendations include:

- Establish a mechanism for facilitating an easy communication platform/channel (e.g. mailing lists, web-based forum, ... etc) keeping in mind some country-specific restrictions on some of the currently available tools (e.g. slack, LinkedIn, ... etc).
- Working groups might advertise their in-person and virtual events with the specific goal of attracting a wider audience of new participants.”

These recommendations were considered and discussed with IMIA leadership and several emerging efforts to address them now include:

- Elaine Huesing is piloting a communication platform (forum) in several WG. Our SEP SIG identified several volunteer members who will moderate the discussions on the forums. This will help to foster communication and create a sense of community within IMIA WG.
- We currently have a Google drive for our shared group documents. However, we hope to improve this practice and we are exploring the possibility to have a place on the IMIA webpages, for storing and sharing documents in the future with Elaine Huesing.

3.3 The SEP group has been active in the conferences and workshops, which have been organised:

- 1) A get-together was held at Medinfo 2019, when the group was established. About 20 persons attended.
- 2) Two panel submissions accepted for NI2020, but postponed to NI2021 due to COVID:
 - a) Peltonen et al. “Will artificial intelligence replace nurses? A debate”.
 - b) M Topaz et al. Grand challenges in using artificial intelligence in nursing: summary of an international think-tank

3) One short paper is accepted to EFMI STC 2020

Barakati, SS., Topaz, M., Peltonen, LM., Mitchell, J., Alhuwail, D., Risling, T., & Ronquillo, C. (2020). Health informatics solutions in response to COVID-19: Preliminary insights from an international survey. EFMI Special Topic Conference 2020: November 26-27, 2020, e-Conference.

Provide details of the WG/SIG's Outreach - Recruitment and engagement of new members and target communities, publicity, and representation at major events and/or on social media.

- The core group meets monthly and the extended member group quarterly online the first Tuesday of the month.
- The SEP group has established a closed LinkedIn group, which currently holds leadership members, but during the upcoming year this will be expanded to the rest of the group.
- An open Facebook group "IMIA- Students' and Emerging Professionals' Group" is upheld for 112 SEP members.
- A quarterly newsletter is distributed to the email list, where anyone can share information relevant to the community. This is upheld by our publications officer Lydia Sequeira.
- New members have best been recruited at conferences in a get together meeting. Handouts have also been distributed to potential members. The last get together was held at Medinfo 2019. But due to the pandemic, many conferences have been postponed or changed into a virtual form and we have needed to seek for other opportunities for recruitment.
- We are building a research forum to help students and mentors to connect (Shabbir Syed and Hans Moen)
- We are working on interviews with established researchers and webinars to share knowledge and lessons learned (<https://sites.google.com/view/imiasepsig/>) (James Mitchell)
- We have listed local health informatics networks and contacts to be used to reach out to new potential members (Sai Veeranki)
- We have reached out to the new yEFMI (young) group and attended their workshop at the ICIMTH 2020 conference in July 2020 (Laura-Maria Peltonen and James Mitchell)
- In the beginning of 2020 we launched a survey to explore suitable means of communication within the group. The response rate to the survey was low, but those that answered mainly preferred email (Figure 2). Participants were interested in the following topics Informatics; Upcoming conferences, new project opportunities; Events, collaborative projects between nursing & Medical informatics; Joint research opportunities, networking opportunities, professional development opportunities; Positive experiences; Conferences, summer school, publications from other members. (Dari Alhuwail)

What is your preferred method of communicating and receiving updates? (Check all that apply)

8 responses

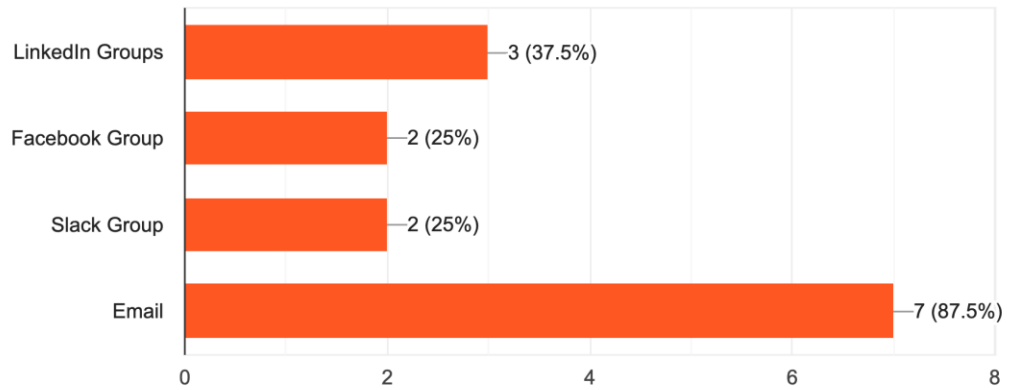


Figure 2. Preferred communication means by SEPmembers

4.a Current number of members:

We have about 200 members recruited. About 10% of these are very active and attend 1-2 monthly meetings.

4.b. List of WG/SIG members:

Core members

Chairs

- Laura-Maria Peltonen (Finland)
- Maxin Topaz (USA)

Vice chairs:

- Charlene Ronquillo (Canada)
- Dari Alhuwail (Kuwait)
- James Mitchell (UK)

Secretary

- Adrienne Lewis

Outreach:

- Clair Kronk (USA)

Research:

- Shabbir Syed (Taiwan)
- Hans Moen (Finland)

Social:

- Lidya Sequeira (Canada)

Communications:

- Sai Pawan Kumar Veeranki (Austria)

NI group

- Lori Block (Canada)
- Raji Nibber (Canada)
- Janine Sommer (Argentina)

- Lisiane Pruinelli (USA)
- Erika Lozada Perezmitre (Mexico)
- Gabrielle Eler (Brazil)
- Jude L. Tayaben (Philippines)
- Eunjoo Jeon (South Korea)
- Jisan Lee (South Korea)