Diversity in Health Informatics: mentoring and leadership

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Abstract: Diversity and interdisciplinary collaboration are drivers for healthcare innovation and adoption of new, technology-mediated services. The importance of diversity has been highlighted by the United Nations (UN) in Sustainable Development Goal 5 (SDG5) “Achieve gender equality and empower all women and girls”, their active engagement and contribution to the adoption of social and digital innovation has been highlighted. Women play an instrumental role in health care and are in position to bring about significant changes to support ongoing digitalization and transformation. At the same time women are underrepresented in Science, Technology, Engineering and Mathematics (STEM). To some extent, the same holds for health care informatics. This panel will debate strategies for peer mentoring to ensure diversity in health informatics to build sustainable, intergenerational communities, to improve digital health literacy and build capacity in digital health without losing the human touch.

Keywords: Diversity, peer mentoring, Gender, Digital Health Literacy, SDGs,

Introduction.

Diversity is a strength and important source for innovation in any field, and requires different expertise and, oftentimes, different values. In interdisciplinary environments the differences among professionals of various disciplines can become pervasive. Inclusion should transcend unconscious bias and stereotypes, in efforts to build inclusive collaborative environments capable to address societal challenges [1]. Ensuring diversity and interdisciplinarity comes with tremendous potential to mobilize the talented human capital for improvement in health and care for all through innovation [2].
Around the globe, women play important, instrumental roles in health care changes, but their presence in Science, Technology, Engineering and Mathematics (STEM) remains low [3], as shown in the graph below.

![Graph showing the percentage of women in selected STEM occupations, 1990-2013.](image)

Figure 1: Women in Science, Technology, Engineering, and Mathematics (STEM) [3].

In health care, women make up the majority in the health care workforce using digital health information systems. They are still significantly underrepresented in top leading positions and, at the same time, very receptive in using health information systems [1]. Although more participation in professional meetings and increasingly more female presenters, as shown in the table below.

Table 2: First authors of accepted podium presentation at the MedInfo, health informatics conferences [5].

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>%</th>
<th>2015</th>
<th>%</th>
<th>2017</th>
<th>%</th>
<th>2019</th>
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<tbody>
<tr>
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<td></td>
<td>N=178</td>
<td></td>
<td>N=247</td>
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<td>N=285</td>
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</tbody>
</table>

Data also suggests that women are under-represented in roles such as keynote speakers compared to the expected representation that is exhibited by first author distribution. Acknowledging diversity and actively engaging women and girls in projects, adoption and utilization of social and digital innovation will help strengthen the interdisciplinary community [2], whilst, at the same time, afford leaders stronger supporting structures as a base to push forth with innovative solutions.

1. Panel Description

Inclusion and gender diversity are necessary to bring out the untapped potential in health informatics, addressing diversity gaps in use of digital health technology is timely, if not overdue. Tapping the power, potential and energy embedded in diversity are key drivers to wider adoption of digital health innovations. Leadership and mentoring pathways can harness opportunities to connect with leaders in their field and across fields. When considering also the need for interprofessional training, the concept of peer mentoring when mentoring is considered as a bidirectional activity is a topic worthy of reflection.
We argue that diversity, equal opportunity and equality are important to tap the full potential of ongoing developments. For this panel, we aim to continue exploring constrains to advancement, point out divides between specialties in our fields, and discuss strategies to help overcome diversity challenges. We will also examine recent changes in policy and emerging initiatives for empowering women and girls in global health across disciplines. The discussion on diversity will suggest strategies to value professional contributions as important qualities that add to interdisciplinarity in Health Informatics, and we will suggest effective strategies to improve diversity in community.

2. Organization of the Panel

Anne Moen
Anne will moderate the panel and discuss mentorship and leadership to explore health informatics require a more sensitive approach to achieve diversity in health informatics.

Catherine Chronaki
Catherine will report case studies of diversity, leadership, and peer mentorship from HL7 and EFMI that exemplifies challenges or incentives for women’s career advancement.

Eva Turk
Eva will take global initiatives for empowerment of girls and women, where addressing unconscious bias, and working conditions can shape advancement in health informatics.

Despina Voulgaraki
Despina will bring in the “med tech” Industry perspective on mentoring and leadership to ensure gender balance and diversity, and report on recent progress.

Elena Petelos
Elena will discuss systematic efforts to empower in order to boost capacity for digital health innovation, improve health literacy, and ensure evidence-informed policymaking.

Rosy Tsopra
Rosy will share experiences from teaching health informatics in medical school, and some observations that may change how we approach and introduce the topics.

Aurélie Névél
Aurélie will introduce mentoring arenas instrumental to explore diversity questions and concerns, while improving performance and offering support to tackle stereotypes.

3. References


[4] Mcmaster, C.N. (2017). Women are less likely to study STEM subjects - but disadvantaged women are even less so. [https://blogs.lse.ac.uk/impactofsocialsciences/2017/07/20/women-are-less-likely-to-study-stem-subjects-but-disadvantaged-women-are-even-less-so/](https://blogs.lse.ac.uk/impactofsocialsciences/2017/07/20/women-are-less-likely-to-study-stem-subjects-but-disadvantaged-women-are-even-less-so/)