Health Information Technology Research Group

Mission Statement
For decades, Canadian healthcare professionals have operated within a challenging, rapidly changing, and fragmented healthcare system. Today, this environment is even more complex as sweeping healthcare reform and market forces transform the way healthcare is delivered and managed. This profound shift is multi-directional involving the structure, policies, logistics, ethics and the culture of work. New alliances and unlikely partnerships are beginning to emerge. Belief systems, values, and attitudes are shifting. There are various thought leaders who believe that we are going to see a major change in healthcare because of the ongoing AI revolution, the integration of natural intelligence, and the need for convergence sciences. The main focus of the HIT is to promote communication and cooperation among core professionals in Biology, Nursing, Medicine, Psychology, Health Sciences, Bioinformatics, Cognitive Sciences, Language and Technology experts along with Computer Science towards enhancing the healthcare system.

Goals and Objectives
- To apply theoretical knowledge and technical skills to drive the improvement of connected healthcare
- Supporting shared decision-making between patients and providers
- Providing personalized self-management tools and resources
- Building social support networks
- Delivering accurate, accessible, and actionable health information
- Facilitating the meaningful use of health IT and the exchange of health information among health care and public health professionals
- Enabling quick and informed responses to health risks and public health emergencies
- Providing new opportunities to connect with culturally diverse and hard-to-reach populations
- Providing sound principles in the design of care programs
- Increasing Internet and mobile access
- Invest in the digital transformation of the healthcare systems

HIT Group Coordinators: Drs. Sabah Mohammed & Jinan Fiaidhi
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Call for Abstracts

Topics
- Quantitative Analytics in Health Sciences
- Health Sciences Apps
- Patient Centered Methods
- Public Health
- Healthcare Design
- IT Health Adda-On

Organizing Committee
Dr. Carlos Zerpa (Chair)
Dr. Sabah Mohammed (Co-Chair)
Dr. Vieki Kristman (Co-Chair)

HIT Members

Submission Details
Email your abstract to one of the chairs on
amazon@lakehead.ca
moahammed@lakehead.ca
vkrystal@lakehead.ca

Submission Due Date:
September 30, 2018

THE ABSTRACT FORMAT
The HIT 1st Workshop provide an opportunity to present your research findings related to any of the workshop areas of interest. The presentations slot is 10 minutes, and a written version of your abstract (up to 300 words in MS Word). The expectations that participants will have read the paper and hence the oral presentation focuses on key findings and the opportunity for discussion. All paper sessions will include a discussion. If your submission for the abstract please use a structured abstract headings (e.g., Introduction, Methods, Results, Discussion) for your 200-400 word abstract. If accepted, your abstract will appear as you have submitted it in the booklet of abstracts.
1st HIT Workshop Program October 12, 2018

- Dr. Carlos Zerpa (Chair)
- Dr. Sabah Mohammed (Co-chair)
- Dr. Vicki Kristman (Co-chair)

1st Health Information Technology Workshop Program

<table>
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<tr>
<th>START TIME</th>
<th>START OF CONFERENCE</th>
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<tbody>
<tr>
<td>9:00 to 9:05</td>
<td>Welcome and Opening Remarks</td>
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<td>Dr. Jinan Fiadhi who will introduce the chairs of HIT 2018 (Dr. Carlos Zerpa, Dr. Vicki</td>
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<td>Kristman and Dr. Sabah Mohammed)</td>
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KEYNOTE SPEAKER

9:05 to 9:45
Introducing a design centered workflow in the collaborative construction of health care planning
Dr. Arnold Kim, MD, TBRHSC, NOSM and Computer Science

STUDENT RESEARCH PRESENTATIONS (Session Chair Dr. Zerpa)

9:45 to 9:55
Characterization of human papillomaviral genome variants
Dallas Nygard, and Robert Jackson, Biology Department (Dr Zehbe Cancer Lab)

9:55 to 10:05
Static and dynamic testing of two commercial flexible-tip spring loaded cane mechanisms
Ms. Katelyn Varga, Dr. Carlos Zerpa. Dr.Meilan Liu, Kinesiology and Engineering

10:05 to 10:15
Cascading Workflow of Healthcare Services
Phillip Osial, Computer Science
10:15 to 10:25  The Effect of Dual Tasking on Motor Performance and Cardiovascular Systems
Ms. Bronte Volebregt, Dr. Carlos Zerpa. Dr.Kathryn Sinden, Kinesiology

10:25 to 10:35  Health Care Document Interoperability through the Notion of MongoDB Single View and LDA Modelling
Daotong Dai, Computer Science

10:35 to 10:45  Exploring the Gene Mutation
Kunwar Krishna Swaroop, Computer Science

10:45 to 10:55  Prescriptive Grammar for Clinical Prescribing Workflow
Kalle Kauranen, Computer Science

10:55 to 11:05  Investigating High Performance Perfectionist Athletes’ Perceptions of the Junior to Senior Sport Transition
Kaylin Kainulainen, Kinesiology

11:05 to 11:15  The effect of a 6-week combined resistance and cardiovascular training program on muscular strength, endurance and body composition in young adults with a mild to moderate intellectual global delay
Ms.Tyler McDougall and Dr. Eryk Przysucha, Kinesiology

START TIME  FACULTY RESEARCH PRESENTATIONS (Session Chair: Dr. Kristman)

11:20 to 11:30  Predicting patient admission from the emergency department using administrative data
Dr. David Savage, Prof Bruce Weaver, D Wood, NOSM

11:30 to 11:40  The use of energy dissipation measurement techniques in assessing helmet impact performance
Dr. Carlos Zerpa, Kinesiology and Dr. Meilan Liu, Engineering

11:40 to 11:50
Introducing a novel non-invasive in vivo assessment of microvascular structure and function in humans
Dr. Kurt Smith, Kinesiology

11:50 to 12:00
Developing a culturally relevant workplace mental health e-health application for the Canadian Indigenous population
Dr. Vicki Kristma, Health Sciences

12:00 to 12:10
Time course of inter-limb strength transfer after unilateral handgrip training with implications for chronic stroke
Dr. Taryn Klarner, Kinesiology

12:10 to 12:20
Motor learning of one-handed actions of children with motor problems: Practical and theoretical implication
Dr. Eryk Przysucha, Kinesiology

12:20 to 12:30
JSON-LD as an Interchange Technology to Facilitate Health Information Exchange
Daniel Kaukinen, Confederation College

START TIME

12:30 to 1:10
TUTORIAL
Developing smart health app without the middleman involvement: Mini tutorial
Dr. Sabah Mohammed and Dr. Jinan Fiaidhi

1:10 to 1:20
Panel discussion and Closing Remarks (Session Chair Dr. Vicki Kristman)

1:20 to 1:40
LUNCH