

University
of VictoriaHealth Information
Science

Digital Health Lives Here

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Director's Message



Over the past few months our faculty, staff and students have been very active. A number of faculty and students presented their work at national and international conferences, with several awards for best paper. In addition, members of the School were very active in publishing their work and running workshops.

I would also like to acknowledge that on Thursday, Sept. 29, the School of Health Information Science commemorated "Orange Shirt Day". September 30th is designated as the National Day for Truth and Reconciliation, a new federal statutory holiday to honour former residential school students and their families. Events took place on campus, including lighting of the Sacred Fire and reflections from residential school survivors.

- Andre Kushniruk, Director and Professor of the School of Health Information Science

News and Events



Thanks to all the students who dropped by our **Information Booth** and to the staff and faculty who set up and helped out at the booth.

We shared snacks and talked about Health Informatics to many HINF and Non-HINF students!

School of Health Information Science Open House

This month we will be hosting two Open House Events! Join us to learn more about our programs and the fantastic jobs our graduates experience.

Visit our website **<u>HERE</u>** for more details.



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OPEN

HOUSE

Online OCT 27 4:30-6:00 **Open House In-Person On-Campus Tuesday, October 25th from 4:30-6:00pm** Snacks will be provided.

Online Open House via Zoom Thursday, October 27th from 4:30-6:00pm



Dr. Karen Courtney met with the Federal Minister of Seniors Khera as a co-lead for the Digital Health cluster at IALH. **Karen** highlighted the leading edge research being undertaken by students and faculty in the School of Health Information Science in Digital Health focused on older Canadians.

Big Data Analytics in Healthcare

Big Data Analytics in Healthcare Workshop

UVic Health Information Science faculty members **Dr. Alex Kuo, Dr. Elizabeth Borycki, Dr. Andre Kushniruk, and Dr. Dillon Chrimes** will be leading a workshop in Osaka, Japan on December 17-20, 2022. At the workshop, they'll be gathering researchers and practicioners to discuss challenges and resolutions in the Big Data Analytics process for healthcare, medicine, and biology.

For more information please visit the event webpage HERE



Congratulations to **Simon Minshall**, Assistant Teaching Professor in the School of Health Information Science, who was awarded the **Teaching-Stream Faculty Learning and Teaching Development Fund Grant** for his research.

Academic Visitors



Dr. Kerstin Denecke, Professor of Medical Informatics at **Bern University** of Applied Sciences in **Switzerland**, visited the School of Health Information Science where she presented on her research on conversational user interfaces in healthcare, medical language processing, information extraction, sentiment analysis, and text classification.



Mari Tyllinen, Doctoral Candidate at Aalto University in Finland and a UX Manager at Oy Apotti Ab (on study leave) visited the school this Summer. She is finishing her doctoral dissertation on measuring usability in public information systems procurement. While working in a healthcare and social welfare information systems procurement project, she developed new usability evaluation methods and a model. Her research interests include usability, user experience (UX) and implementation of health and social welfare information systems.

Awards and Recognitions



Dr. Helen Monkman was nominated for an education award at the **Medical Informatics in Europe Conference** for her paper, "Using Simulations to Train Medical Students for Anticipated Technology Failures in Telemedicine".



NSERC Visual Automated Disease Analytics Masters Student, Amy Kim received the Best Poster Award for her reasearch on "Personality Attributes and their Associations with Opioid Use". Amy Kim's research explored how personality attributes from the Five Factor Model can be associated with opioid use.



NSERC Visual Automated Disease Analytics Doctoral Student, Amanda Lynn Joseph received the Student Choice Award for her video presentation for her research on "An Evaluation Guide and Decision Support Tool for Journey Maps in Healthcare and Beyond".



Congratulations as well to Amanda Lynn Joseph, Dr. Helen Monkman and Dr. Andre Kushniruk for receiving the Best Student Paper Award at the International Conference on Informatics, Management and Technology in Healthcare (ICIMTH) for their research entitled "An Evaluation Guide and Decision Support Tool for Journey Maps in Healthcare and Beyond".



Congratulations to School of Health Information Science Doctoral Student, **Kelly Davison**, for being awarded a Fellowship with the **Canadian Institutes for Health Research-funded 2SLGBTQ+ Health Hub.**

Student Presentations



Congratulations to **Junko Fukui Innes** who presented on "**Predicting Transition to Next Level of Care for Seniors in Home Support'** at the faculty of Human and Social Development Research Day at the University of Victoria, Canada.



Congratulations to **Evangeline Wagner** who presented on "**Understanding the Needs of Caregivers Involved in At-Home Care using SmartHome Systems for Patients with Dementia''** at the faculty of Human and Social Development Research Day at the University of Victoria, Canada.

Faculty and Student Publications



Clinical Decision Support Systems

Schwartz JM, George M, Rossetti SC, Dykes PC, Minshall SR, Lucas E, Cato KD. Factors

Influencing Clinician Trust in Predictive Clinical Decision Support Systems for In-Hospital Deterioration: Qualitative Descriptive Study. JMIR Hum Factors. 2022 May 12;9(2):e33960. doi: 10.2196/33960. PMID: 35550304; PMCID: PMC9136656.

Consumer Informatics

Darvishzadeh Sayadi A, Keshavjee K, **Monkman H**, Guergachi A, Paglialonga A. Improving Shared Decision-Making Using Cognitive Effort-Optimization. In: Séroussi B, Weber P, Dhombres F, Grouin C, Liebe JD, Pelayo S, Pinna, A., Rance, B., Sacchi, L., Ugon, A., Benis, A., Gallos, P., editors. Studies in Health Technology and Informatics [Internet]. IOS Press; 2022 [cited 2022 Jun 29]. Available from: https://ebooks.iospress.nl/doi/10.3233/SHTI220561

Joseph AL, Monkman H, Kushniruk AW. An Evaluation Guide and Decision Support Tool for Journey Maps in Healthcare and Beyond. In: Mantas J, Gallos P, Zoulias E, Hasman A, Househ MS, Diomidous M, et al., editors. Studies in Health Technology and Informatics [Internet]. IOS Press; 2022 [cited 2022 Jul 3]. Available from: <u>https://ebooks.iospress.nl/doi/10.3233/SHTI220689</u>

Monkman H, Griffith J, Macdonald L, Joseph AL, Lesselroth B. Why Do People Use Online Lab Results and What Do They Look For: A Qualitative Study. Stud Health Technol Inform. 2022 May 25;294:599-603. doi: 10.3233/SHTI220539. PMID: 35612159.

Peute LW, Wildenbos GA, Engelsma T, Lesselroth BJ, Lichtner V, **Monkman H**, Neal D, Van Velsen L, Jaspers MW, Marcilly R. Overcoming Challenges to Inclusive User-based Testing of Health Information Technology with Vulnerable Older Adults: Recommendations from a Human Factors Engineering Expert Inquiry. Yearb Med Inform. 2022 Jun 2. <u>doi: 10.1055/s-0042-1742499</u>. Epub ahead of print. PMID: 35654432.

Data Science and Predictive Analytics

Fukui Innes, J. (May 13, 2022). Predicting Transition to Next Level of Care for Seniors in Home Support. Human and Social Development Research Day, University of Victoria, Canada.

Juhra C, Born J, **Borycki EM, Kushniruk AW**, Ho K. Medical Emergency Data and Networks: A German-Canadian Comparison. Stud Health Technol Inform. 2022 May 20;291:27-35. <u>doi: 10.3233/SHTI220005</u>. PMID: 35593756.

Health Informatics Education and the Health Informatics Profession

Kushniruk A, Borycki E, Monkman H. Toward an Integrative and Holistic Approach to the Discipline of Health Informatics. In: Rezaei N, editor. Multidisciplinarity and Interdisciplinarity in Health [Internet]. Cham: Springer International Publishing; 2022. p. 593–605. Available from: <u>https://doi.org/10.1007/978-3-030-96814-4_26</u>

Public Health Informatics

Joseph AL, Monkman H, Kushniruk AW, Borycki EM. The Utilization of Health Informatics Interventions in the COVID-19 Pandemic: A Scoping Review. In: Mantas J, Gallos P, Zoulias E, Hasman A, Househ MS, Diomidous M, et al., editors. Studies in Health Technology and Informatics [Internet]. IOS Press; 2022 [cited 2022 Jul 3]. Available from: https://ebooks.iospress.nl/doi/10.3233/SHTI220687

Minshall SR, Monkman H, Kushniruk A, Calzoni L. Towards the Adoption of Novel Visualizations in Public Health. Stud Health Technol Inform. 2022 Jun 29;295:136-139. doi: 10.3233/SHTI220680. PMID: 35773826.

Safety

Borycki EM, Farghali A, Kushniruk AW. Do Health Technology Safety Issues Vary by Vendor? Stud Health Technol Inform. 2022;295:345-349. doi:10.3233/SHTI220734

Borycki EM, Farghali A, Kushniruk AW. Integrating Human Patterns of Qualitative Coding with Machine Learning: A Pilot Study Involving Technology-Induced Error Incident Reports. Stud Health Technol Inform. 2022;295:276-280. <u>doi:10.3233/SHTI220716</u>

Borycki EM, Farghali A, Kushniruk AW. Complexity and Health Technology Safety. Stud Health Technol Inform. 2022;295:551-554. <u>doi:10.3233/SHTI220787</u>

Borycki EM, Kushniruk AW. Using Publicly Available Recall and Safety Alert Reports for Learning from Technology-Induced Error. Stud Health Technol Inform. 2022 Jun 6;290:442-446. doi: 10.3233/SHTI220114. PMID: 35673053.

Davy A, Borycki EM. Business Intelligence Dashboards for Patient Safety and Quality: A Narrative Literature Review. Stud Health Technol Inform. 2022 Jun 6;290:438-441. <u>doi:</u> 10.3233/SHTI220113. PMID: 35673052.

Joseph AL, Monkman H, Kushniruk AW, Borycki EM. Are Personal Health Records (PHRs) Facilitating Patient Safety? A Scoping Review. Stud Health Technol Inform. 2022 May 25;294:535-539. <u>doi: 10.3233/SHTI220516</u>. PMID: 35612137.

Monkman H, Palmer R, Ijams S, Kollaja L, Rodriguez KA, Liew A, Wickham A, Wen F, Miller B, Lesselroth BJ. Using Simulations to Train Medical Students for Unanticipated Technology Failures in Telemedicine. Stud Health Technol Inform. 2022 May 25;294:775-779. <u>doi: 10.3233/SHTI220582</u>. PMID: 35612202.

Monkman H, MacDonald L, Nøhr C, Tanaka JW, Lesselroth BJ. Hidden in Plain Sight: Overlooked Results and Other Errors in Evaluating Online Laboratory Results. In: Otero P, Scott P, Martin SZ, Huesing E, editors. Studies in Health Technology and Informatics [Internet]. IOS Press; 2022 [cited 2022 Jun 7]. p. 867–71. Available from: https://ebooks.iospress.nl/doi/10.3233/SHTI220203

Virtual Care: Hospital at Home, Mobile Health, Smart Homes, TeleHealth

Borycki EM, Kushniruk AW. Reinventing virtual care: Bridging the healthcare system and citizen silos to create an integrated future. Healthcare Management Forum. 2022;35(3):135-139. doi:10.1177/08404704211062575

Campbell JL, **Monkman H.** Pre- and Post-Redesign Usability Assessment of a Telemedicine Interface Based on Subjective Metrics. In: Otero P, Scott P, Martin SZ, Huesing E, editors. Studies in Health Technology and Informatics [Internet]. IOS Press; 2022 [cited 2022 Jun 7]. p. 872–6. Available from: https://ebooks.iospress.nl/doi/10.3233/SHTI220204

Lesselroth B, **Monkman H,** Palmer R, Liew A, Soo E, Ijams S, Kollaja L, Rodriguez K, Homco J, Kendrick C, Wickham A, Wen F.Lesselroth B, Monkman H, Palmer R, Liew A, Soo E, Ijams S, Kollaja L, Rodriguez K, Homco J, Kendrick C, Wickham A, Wen F., Teaching Teledermatology: A Simulation Pilot for Health Professional Students. In: Séroussi B, Weber P, Dhombres F, Grouin C, Liebe JD, Pelayo S, et al., editors. Studies in Health Technology and Informatics [Internet]. IOS Press; 2022 [cited 2022 Jun 29]. Available from: <u>https://ebooks.iospress.nl/doi/10.3233/SHTI220637</u>

Noel Nikiema J, Stringer E, Moreault MP, Pana P, Laverdiere M, Régis C, Denis JL, Godard B, Breton M, Paré G, Shachak A, Lai C, **Borycki EM, Kushniruk AW,** Motulsky A. Assessing the Quality of Direct-to-Consumer Teleconsultation Services in Canada. Stud Health Technol Inform. 2022 May 25;294:935-936. <u>doi: 10.3233/SHTI220628</u>. PMID: 35612246.

Sahin C, **Courtney KL**, Naylor PJ, Rhodes RE. Mobile Text Message Design and Delivery Preferences of Patients with Type 2 Diabetes: A Social Marketing Approach. Journal of Technology in Behavioral Science. 2022. <u>https://doi.org/10.1007/s41347-022-00250-w</u>

Spina SP, Hainstock T, Haddadi R, Bourke B, Thompson L, Borycki E, Cartwright J,

Forbes D, Harder CK, **Kushniruk A**, Mckelvey T, McMillan T, Menz S, Mukai K, Riddle M, Tierney S, Zeron Mullins M. Engaging patients and families in developing, implementing, and evaluating hospital at home: A Canadian case study. Patient Experience Journal. 2022; 9(1):217-226. doi: <u>10.35680/2372-0247.1660.</u>

Wagner, EM. (May 13, 2022). Understanding the Needs of Caregivers Involved in At-Home Care using Smart Home Systems for Patients with Dementia. Human and Social Development Research Day, University of Victoria, Canada.

Books and Toolkits

Otero P, Scott P, **Martin S Z**, Huesing E. MEDINFO 2021: One World, One Health -Global Partnership for Digital Innovation: Proceedings of the 18th World Congress on Medical and Health Informatics, Virtual Event, 2-4 October 2021. Studies in Health Technology and Informatics 290, IOS Press 2022, ISBN 978-1-64368-264-8. doi: <u>https://ebooks.iospress.nl/ISBN/978-1-64368-265-5</u>

Featured Books and Readings



Susan Z. Martin was an editor who worked on the proceedings from the Medinfo Conference in 2021.

To read her publication, **MEDINFO 2021: One World, One Health – Global Partnership for Digital Innovation** Click Here!



Susan Z. Martin is also excited to have been a contributing writer for The Carbon Almanac, a new kind of book about climate change produced by over 300 people from 41 countries collaborating virtually. It was Susan's experience teaching Figma design software (HINF 350 Lab) that made her step up for The Carbon Almanac project since in the initial announcement of the project there was talk of using Figma to design the book. You never know where HINF experiences and coursework might take you!

Professional Development



Catch up on your knowledge of Business Intelligence with:

Loewen L, **Roudsari A.** Evidence for Busines Intelligence in Health Care: A Literature Review. Stud Health Technol Inform. 2017;235:579-583. PMID: 28423859.

Read Here



Health Information Science Seminar Series

Health Terminology Standards Seminar Series Recordings

Keep up to date on **Health Terminology** Standards. Check out recordings from our **Health** Terminology Standards Seminar Series 2022 led by Dr. Francis Lau in the areas of:

- Health System Improvement
- Nursing Standards
- SNOMED CT Trends and Latest Developments
- Health Records and Documentation Quality
- Computable Care Guidelines

Recordings can be viewed HERE

Health Information Science Alumni Spotlight



Alumni **Andrew Abuleal** completed a six-month international work term placement as an Information and Communications Technology (ICT) Health System Management Intern primarily supporting the MEDITECH Expanse electronic health record (EHR) project at the Aga Khan University Hospital, Nairobi. He is extremely thankful for the School of Health Information Science at the University of Victoria for providing him with a once in a lifetime opportunity that has benefited him both personally and professionally.

EXPERIENTIAL LEARNING & CO-OP EMPLOYMENT

Featured Co-op Students



During her Co-op **Aarfa Ali** developed comprehensive communications plan for the team and provided support with the team's strategic planning. She also made updates to BC Virtual Visit, an online video visit application used by thousands of clinicians at Island Health. **Aarfa** also assisted with a workflow analysis for the implementation of BC Virtual Visit into an Island Health program area.



Musab Saad is currently serving as a project analyst on the eHealth and Virtual Care Innovation team at the First Nations Health Authority. **Musab** is working closely with the team to implement a pan-provincial First Nations Electronic Medical Record (EMR). The EMR will improve quality, safety, and culturally-safe care for 47+ First Nations communities across BC. **Musab** is committed to working hard to advance health equity for First Nations individuals, families, and communities in BC.

Co-op Hiring

Considering a Co-op student? Typical Health Information Science Co-op jobs include:

- + Business applications analyst
- + Clinical applications student
- + Go-live support
- + Health business consultant
- + Health data analyst
- + Health systems analyst

The hiring process is simple. If you are interested in learning more about hiring please contact the Health Information Science Co-op office <u>hiscoop@uvic.ca</u>



Co-op Funding Opportunities

Co-op Funding Update: BioTalent

The Federal government's Student Work Placement Program (SWPP) provides up to 50% of the student's wages (to a maximum of \$5,000) or 70% (to a maximum of \$7,000) for students from underrepresented groups which includes female STEM students, first year students, indigenous students, student with a disability, visible minorities and newcomers to Canada.

SWPP has 12 funding partners who deliver the funding across Canada based on industry sector. Each funding partner has different application processes and there are some slight differences in criteria.

• Consider applying to **BioTalent Canada**

Employers, uncertain if your job qualifies? Contact Colleen at 1-866-243-2472, ext. 218 or <u>askme@biotalent.ca</u>

- You have to apply for the funding before the student starts their job.
- Multiple grants are possible eg. Hire two students and receive two grants.
- Student eligibility: This Federal program is only available to students who are Canadian citizens, Permanent Residents or students who have refugee status. International students are not eligible for this funding.

Employers have told us that the application process takes 15-20 minutes to complete. Grants are allocated on a first-come, first-served basis so you are encouraged to apply as soon as possible. Should you not find a suitable student for your position, simply inform the funding partner that you do not need the grant.

Educational Program Deadlines

Undergraduate Degree Admission

Learn more about:

- BSc in Health Information Science
- BSc in Health Information Science and Computer Science

Apply by September 30th 2022 for January 2023 entry <u>Read more</u> and <u>Apply Now</u>

or contact <u>his@uvic.ca</u> for application information

Graduate Degree Admission

Learn more about:

- MSc in Health Informatics
- Master of Nursing and MSc in Health Informatics
- PhD in Health Informatics

Apply by December 1st 2022 for September 2023 entry Read more and Apply Now

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Scholarships and Awards



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We acknowledge and respect the lak^wəŋən peoples on whose traditional territory the University of Victoria stands, and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day. Unsubscribe from this mailing list.

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