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HEALTH INFORMATICS AT DALHOUSIE UNIVERSITY

- DAVID ZITNER, AND MICHAEL SHEPHERD -

www.healthinformatics.dal.ca

Dalhousie University has launched the first formal Canadian graduate program in Health Informatics. The first intake of students was this past September and includes physicians, nurses, a pharmacist and a dentist, as well as people with degrees in health education and in engineering. The goal of the program is to expose students to modern thinking about health information and to help them develop an understanding of the technical issues around the capture, dissemination, sharing, and use of health information for clinical care, health services research, policy development and patient and provider education.

This Master of Health Informatics program is a unique and equal collaboration between the Faculty of Medicine and the Faculty of Computer Science, with a rich contribution from the Faculties of Science and of Management. The interdisciplinary nature of Health Informatics is reflected in both the academic program and its administrative structure. Academically, it is a competencies-based program as per the 2001 HealNet report edited by Covey, Zitner and Bernstein on Health Informatics curricula, *Pointing the Way: Competencies and Curricula in Health Informatics*. Specially designed courses in IT and in health have been developed for the program while IT project management and leadership courses are taken from the School of Business Administration and research methods and statistics courses are taken from Psychology and Statistics, respectively. The two-year program includes either a research thesis or an applied work term as part of the degree requirements.

The administrative model is based on Dalhousie's highly successful Master of Electronic Commerce program that is a collaboration among three Faculties; Computer Science, Law and Management. In the Health Informatics program, an executive committee made up of members from Medicine, Computer Science and Management administer the program and report to the Deans of Computer Science and Medicine. The director of the program is Michael Shepherd (Ph.D.), a professor and Director of Health Informatics for the Faculty of Computer Science, and the Chair of the executive committee is David Zitner (MD), a professor and Director of Medical Informatics in the Faculty of Medicine.

After two years of planning, the startup of this program at this particular time is especially timely, given the major interest in health care and health reform as evidenced by major studies by Mazankowski, Kirby, and Romanow. One hypothesis resulting from these reports is that the major problems in health care are a result of inappropriate investment in and use of health information systems. For example, no health jurisdiction in Canada knows how many people are waiting for care and what happens to all of those people who wait. Moreover, we do not capture vital information allowing clinicians and administrators to link health care activities with results and health outcomes. The graduates of Health Informatics programs such as Dalhousie's will have a positive effect on the investment in and the use of information to improve our health system.

Dalhousie's program is an outgrowth of five years of meaningful collaboration between Computer Science and Medicine. During this time, more than twenty Computer Science students have completed health-related research theses as part of their graduate programs. In all cases, the topics were put forward by people in Medicine and the students supervised jointly by a Computer Science faculty member and the topic proposer from Medicine. Many of these theses have resulted in scholarly publications and some, such as a system for Structured Discharge Summaries based on HL7's Clinical Document Architecture, have made the leap from the research lab to use in a medical setting. This collaboration follows the belief that, "Health is the focus and technology is the enabler."

The collaboration between Medicine and Computer Science has helped to identify and bring together a cohort of computer scientists with research interests that can support and be supported by health system relevant research. Health Informatics is one of the four strategic initiatives of the Faculty of Computer Science at Dalhousie and is the recipient of strong support from the University, the Faculties involved, a CFI grant for research infrastructure and the support of GINIus (Global Information Networking Institute University Services). Now, in addition to research in Computer Science, Dalhousie students will be able to pursue research theses in the Master of Health Informatics program. Those students wishing to pursue a Ph.D. with research interests in Health Informatics can apply to the Dalhousie University Interdisciplinary Ph.D. program.

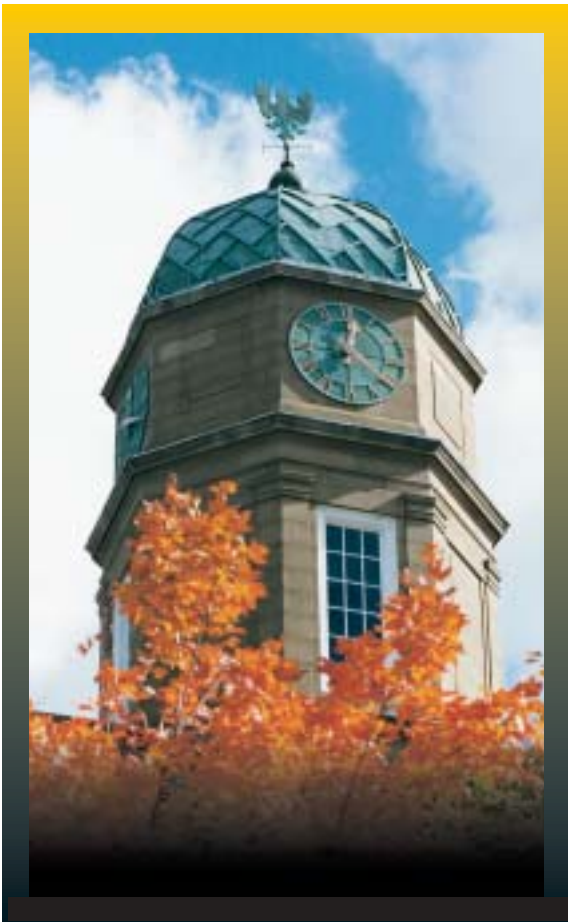
Over the past year, the Dalhousie Health Informatics group has developed strong research relationships with other like-minded groups across Canada. In particular, they are members of the CANARIE, Inc., funded Health Informatics Collaboratory, developing technology and content for distance-based Health Informatics education and the CIHR Training Grant for building research capacity in Health Informatics. Francis Lau of the University of Victoria is the principle investigator for both of these initiatives.

This pan-Canadian collaboration is important in bringing Health Informatics education and research to the fore in Canadian

universities. Although Dalhousie's Master of Health Informatics program is the first of its kind in Canada, there are other programs contributing to the field and it is expected that more such programs will be announced over the next couple of years. These new programs are essential in building a critical mass of researchers and practitioners in Health Informatics for Canada.

A survey recently completed by Francis Lau pointed out a desperate need for people with training and understanding of technical issues relating to the collection and use of information, as well as an understanding of the clinical and health care enterprise. Dalhousie's Master in Health Informatics program hopes to fill that need. Drs. Shepherd and Zitner, with strong support from Deans MacDonald (Medicine) and Cercone (Computer Science), believe this new program will produce a cohort of students able to contribute to their communities by developing and implementing valuable solutions to important health care problems.

More information is available on this program and Health Informatics activities at Dalhousie at: <http://www.healthinformatics.dal.ca>



DALHOUSIE

U N I V E R S I T Y

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— Dr. Thomas Noseworthy
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Professor & Director, Centre for Health & Policy Studies, University of Calgary



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