

# e-Health Conference Apps Challenge Shines Light on Phenomenal Health IT Innovators of Tomorrow



*Mohawk College Connection: Dr. Harry Keith Edwards, Adjunct Professor, Computer Science at Mohawk; Rahulbhai Patel, an Apps Challenge runner-up; Jerad Godreault and Leo Godreault, the winning Challenge team; and Duane Bender, Principal Applied Researcher, e-Health & mHealth & Professor at Mohawk, gathered for a photo at the Apps Challenge award presentation. (Photo Credit: Arun Agrawal)*



*Jenna Hamilton and her sister Leah created Functional Vitals, one of the runner-up Apps. Jenna is shown at the e-Health 2012 Conference beside "Phil", a cardboard copy of the avatar for the Canadian Institute for Health Information (CIHI) Land newsletter. (Photo Credit: CIHI)*

If you've ever forgotten to take medication on time or worried about a relative taking a prescription correctly, you will appreciate SmartMed, the winning entry in the e-Health 2012: Innovating Health e-Care Conference Apps Challenge created by Hamilton, Ontario brothers **Leo and Jerad Godreault**.

Representing the Mohawk College Applied Research Centre for e-Health and Ontario Centres of Excellence, the Godreaults designed SmartMed so it can be used on a smartphone to remind users to take prescriptions and track their progress. It can also, with the patient's permission, allow family members and others concerned about the course of care to monitor prescription adherence. They won the \$3,500 first prize in the first Apps Challenge at the conference in Vancouver in May.

"Throughout my experience in nursing, both academic and practical, it has been very apparent that medication adherence is an issue both in this country and around the world," said Leo Godreault, a Mohawk-McMaster University Bachelor of Science in Nursing graduate "My experience in healthcare, along with my brother's knowledge of software development, inspired us to try and address this issue."

He said the phone application will be available for download "in the coming weeks." The web services application, allowing secondary and tertiary parties to view the adherence data being created by its users, is scheduled to be available by late November.

"Once the (web) application is released, we will begin marketing to clients and businesses interested in adherence improvement and data collection," said Leo. "Our idea for monetizing this is as a value-added service by an established brand or by the added functionality of the web services. The application itself will be free to clients who wish to better manage their prescriptions."

Organized around "Connected Care for Consumers and Clinicians", the Challenge attracted teams affiliated with universities and colleges from across Canada.

"We introduced the Challenge to both profile and support the amazing emerging talent and creativity we have in Canada for improving healthcare continuity, connectivity and information-sharing using IT," said Don Newsham, CEO, COACH: Canada's Health Informatics Association, and a Challenge organizer. "The entries were phenomenal and clearly show how Apps can meet important healthcare needs."

The two Apps Challenge runner-up teams were also recognized with \$1,500 each. Here's a look at their Apps.

## Functional Vitals

Port Williams, Nova Scotia sisters **Leah Hamilton**, a Queen's University biology graduate and **Jenna Hamilton**, a Dalhousie University commerce student, designed this mobile app to collect and analyze personalized fitness test results for older adults.

"It is predicted that by 2051, one in four Canadians will be 65 years or older, so we will need new tools and innovative thinking to prepare for this change in population demographics," said Leah. "Functional Vitals will serve as a motivational tool to help change the personal health practices of older adults, help participants realize their fitness shortcomings and act as a predictive tool of future health."

The App prompts the healthcare provider (physiotherapist, physician, fitness instructor, etc.) who is assessing the older adult through several validated function tests and provides immediate results in an easy to understand graphic representation, comparing the participant to his/her normative values. Results can then be emailed to the healthcare provider.

Jenna and Leah have been demonstrating Functional Vitals to fitness leaders and physiotherapists and plan to release it to the Apps market this month (November).

### MyPCS - Rahulbhai Patel

Runner-up **Rahulbhai Patel**, also representing Mohawk's Applied Research Centre for e-Health, designed MyPCS, a consumer-oriented Product Safety Checker App that individuals can use at point of purchase to make decisions about over-the-counter medications and remedies.

MyPCS uses a smartphone camera to scan the product barcode and issues a query to the patient's online personal health record as well as to online pharmaceutical databases provided by

the Canadian Pharmacists Association. It looks for potential side effects that may affect the patient and, using an evidence-based rule set, makes a recommendation to the patient about the product.

Rahulbhai, a Computer Systems Technology Software Development student at Mohawk, was inspired to create MyPCS when he had to take a couple of medications simultaneously. "It made me think about how, because of the possible medication interactions, many people could have serious trouble." He would like to further develop MyPCS, including adding a feature to scan product labeling to detect ingredients that could trigger a consumer's food allergies.

He said participating in the Apps

Challenge was a valuable learning experience and he hopes it attracts more attention next year. "I like the whole idea of the Apps Challenge and I was really happy about being there and meeting many different people."

*Watch the conference website, [www.e-healthconference.com](http://www.e-healthconference.com), for details about the 2013 Apps Challenge at Canada's only national e-Health Conference. The conference is presented by hosts COACH, Canada Health Infoway and the Canadian Institute for Health Information.*



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