

Anonymizing Health Care Information For Higher Use

Children's Hospital of Eastern Ontario (CHEO)

University of Ottawa



Privacy Analytics, a Children's Hospital of Eastern Ontario (CHEO) Research Institute Inc. and University of Ottawa spin-off, has developed the world's only proven, responsible way of unlocking the value of health data, ultimately improving the health of patients.

Over the past few years the term "Data Privacy" has grown from a concern for information technology professionals into a complex social issue in both public and private sector organizations. With the shift from paper to databases and online technologies, data privacy has become a key issue, especially in industries such as government, insurance, finance, and healthcare.

“ These days, it's easy to lose a memory stick with data on hundreds of thousands of patients. If it was just a case of protecting someone's privacy, the situation would not be that complicated.

The challenge is that those patient records are a valuable resource to researchers who could use them to reduce health-care costs, to allocate resources more efficiently and to rapidly detect disease outbreaks. “Everybody wants this data,” says Dr. El Emam, CEO of Privacy Analytics. “Data has a lot of value and can bring about a lot of societal benefits when it is shared and analyzed. But the bottom line is that this has to be done in a way that is protective of privacy.”

To address this issue, Dr. El Emam formed Privacy Analytics Incorporated (PAI) in 2007 and launched a solution to privacy problems in 2009: the Privacy Analytics Risk Assessment Tool (PARAT). The PARAT is a digitalized solution, based on scientific analysis that uses a process called “De-Identification” which strips out key data elements that may be used to tie individual records back to people. While the technology is applicable across the breadth of vertical industries most concerned about privacy, PAI’s initial focus is on healthcare, where the secondary use of medical information is being hampered due to privacy concerns.

“In other words, family histories, home addresses, and occupations are concealed by PARAT, while other valuable aspects of data are preserved. These can then be analyzed and potentially lead to important discoveries,” explains Dr. El Emam.

At CHEO, the solution solved a long-standing problem for pediatric hospital pharmacists who wanted to benchmark drug utilization. “This tool made the intangible privacy risks much more concrete and easier to manage”, says Dr. Régis Vaillancourt, Director of CHEO Pharmacy.

On May 9th, 2016, nine years after the company’s creation, Privacy Analytics Inc. was acquired by IMS Health (now QuintilesIMS), a leading global information and technology services company providing clients in the healthcare industry with end-to-end solutions to measure and improve their performance. QuintilesIMS offers Privacy Analytics a global platform and access to leading-edge technologies.

“The University has been very supportive of commercialization. Most of our employees are uOttawa grads, so the process of commercializing our research has allowed us to keep the best and the brightest here as well as to generate interest among the student body, getting them thinking about how to commercialize their ideas and deploy them in the real world. Commercialization is a great way to shorten the normally lengthy process of translating research into practice,” says Dr. El Emam.

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