

Anonymizing Health Care Information For Higher Use

University of Ottawa











With the increasing digitization of health care data, concern has grown over the privacy of personal information. But for health researchers, the cumulative data in patient medical records represent a treasure trove of information that could help reduce health care costs, allocate resources more efficiently and rapidly detect disease outbreaks.

"Everybody wants this data," said Khaled El Emam, a professor at the University of Ottawa (uOttawa) and a senior investigator at the Children's Hospital of Eastern Ontario (CHEO) Research Institute. "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 protect individual patient information while preserving data usability, El Emam developed software called the Privacy Analytics Risk Assessment Tool (PARAT). The digitalized solution is based on patented scientific analysis called "de-identification," which strips out key data elements that could be used to connect individual records to patients.

In 2007, El Emam founded a spin-off company, Privacy Analytics Inc. (acquired by IMS Health, now IQVIA, in 2016) and launched the PARAT solution commercially two years later. At CHEO, the solution solved a long-standing problem for

pediatric hospital pharmacists who wanted to benchmark drug utilization by making the privacy risks easier to manage.

"The university has been very supportive of commercialization," said El Emam, who is CEO of Privacy Analytics. "Most of our employees are uOttawa grads, so the process 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," he said.

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