Privacy risks from geographic information

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In today's world more geographic information is being collected about us, such as where we live, where the clinic we visited is located, and where we work. Web sites are also collecting more geographic information about their users. This location information makes it easier to identify individuals, which can raise privacy concerns when location is coupled with basic demographics and sensitive health information. Individuals living in small areas tend to be more easily identifiable because they are unique on their local demographics.

A new research study published online in the *BMC* Medical Informatics *and Decision Making* journal measures how easy it is to determine the identity of individuals using their geographical information.

In the article titled A Method for managing Re-identification Risk form Small Geographic Areas in Canada, Prof. Khaled El Emam, Canada Research Chair in Electronic Health Information and lead author, explains that they have developed a new method for measuring the privacy risk for Canadians, in particular, those living in small geographic areas. This privacy risk measure can then be used to decide whether it is appropriate to release/share geographic information or not and what demographics to include with this geographic information. The article also presents a set of criteria and checklists for managing the privacy risks when releasing/sharing location information.

"What we have developed is an overall risk management approach to decide how best to protect people's privacy by taking into account their locations, the sensitivity of the data, and who they are sharing the data

with," explains Dr. El Emam.

This study shows that by protecting only the individuals living in small geographic areas, as defined by the new measures, it is possible to share more information while still being able to manage privacy risks.

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