

# To Surveil and Predict: A Human Rights Analysis of Algorithmic Policing in Canada

## The Current Landscape

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→ The information in this fact sheet is necessarily non-exhaustive and is not a comprehensive depiction of the current Canadian landscape, due to the lack of publicly available information and difficulty in freedom-of-information request processes, regarding the use of algorithmic policing technologies by all police services and law enforcement agencies across Canada. The following is based on information that the authors of the report [To Surveil and Predict: A Human Rights Analysis of Algorithmic Policing in Canada](#) were able to confirm in their research. This fact sheet should not be taken to indicate that any given law enforcement authority is not using a particular technology, unless explicitly stated, or that there are not other, unknown algorithmic policing technologies being used, developed, or considered by law enforcement authorities in Canada.

### Who is using, developing, considering, or in possession of **location-based algorithmic policing technology**?

The **Vancouver Police Department (VPD)** uses a program known as the **GeoDASH algorithmic policing system (APS)**. The GeoDASH APS predicts the top six areas in Vancouver (three 100 square metre blocks and three 500 square metre blocks) where a break-and-enter is likely to happen within a given two-hour period throughout the day. It was created collaboratively between in-house staff at the VPD, a consortium of academics, and the company Latitude Geographics.

The **Toronto Police Service (TPS)** has collaborated with **Environics Analytics** since at least 2016, a data analytics company, to engage in data-driven policing, and has access to IBM's Cognos Analytics and Statistical Package for the Social Sciences software, which enables data mining and location-based predictive modelling. However, the TPS has no plans to implement predictive policing in the immediate future, and has not engaged with any technology vendors for that purpose. The TPS may consider implementing location-focused algorithmic policing in the future, if they have the resources and if there is alignment with federal and/or provincial governance strategies, among other factors.



## Who is using, developing, considering, or in possession of person-based algorithmic policing technology?

The **Saskatoon Police Service (SPS)** partnered with the University of Saskatchewan and the Saskatchewan Ministry of Corrections and Policing to form the **Saskatchewan Police Predictive Analytics Lab (SPPAL)**. The SPPAL's current project is unique in that it claims to focus on pre-emptively identifying potential victims, such as missing youth. The SPPAL intends to expand the scope of its algorithmic work in the future to address other safety concerns and community issues such as repeat and violent offenders, intimate partner violence, the opioid crisis, and individuals with mental illness in the

criminal justice system. The SPPAL approach may be considered an algorithmic extension of the Hub model of community safety, which aims to identify “at risk” individuals and connect them with needed social support, to intervene before the criminal justice system is involved.

The **Calgary Police Service (CPS)** uses **Palantir Gotham**, a product from Palantir Technologies, to integrate various data sources for analysis, but not for the software's algorithmic and predictive policing capabilities (such as integrating social media content, email and telecommunications information, financial records, and credit history). However, the CPS stores in Palantir individuals' information about physical characteristics, relationships, interactions with police, religious affiliation, and “possible involved activities”, in addition to using Palantir to map out the location of purported crime and calls for services. Palantir Technologies has been closely associated with controversial predictive policing programs in the United States, and media reports indicate the company is preparing to ramp up operations in Canada.

The **Ontario Ministry of the Attorney General** has begun to explore the use of a **pre-trial risk assessment tool** similar to existing programs in the United States, including completing a feasibility study of such tools. The advertised purpose of this technology is to provide algorithmic risk assessment of individuals for making decisions about pre-trial detention (i.e., bail).

In the corrections context, researchers at the **University of Saskatchewan** are conducting a machine learning project based on, and envisioned to replace, the **Level Service Inventory - Ontario Revised (LSI-OR)**. The LSI-OR is a statistical risk assessment instrument that is used to carry out risk and needs assessments every six months for “all adult inmates undergoing any institutional classification or release decision, for all young offenders both in secure and open custody and for all probationers and parolees.”

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## Who is using **algorithmic surveillance technologies?**



**Automated License Plate Readers:** This technology is used by law enforcement authorities in Ontario, British Columbia, Saskatchewan, Alberta, Nova Scotia, Quebec, and Prince Edward Island.



**Social Media Surveillance:** The Calgary Police Service (CPS), the Toronto Police Service (TPS), the RCMP, and the Ottawa Police Service have used various forms of social media surveillance technology. This includes the RCMP's use of social media monitoring software, called "Social Studio" (developed by Salesforce) to collect and analyze publicly available social media content. In April 2020, the RCMP issued a public tender seeking software to expand the reach of its algorithmic social media surveillance capabilities.



**Chat Room Scraping (ICACCOPS):** The Ontario Provincial Police may be using a technology that monitors chat rooms (including private password-protected chat rooms) in order to mine private conversations and store them in a searchable database accessible by law enforcement authorities. This program is known as ICACCOPS.



**Facial Recognition Technology (Clearview AI):** The RCMP, the Calgary Police Service (CPS), the Edmonton Police Service (EPS), and multiple policing services throughout Ontario have used or tested Clearview AI facial recognition technology, including the TPS, the Peel Regional Police Service, Halton Police Service, Ottawa Police Service, Durham Regional Police Service, Niagara Regional Police Service, and Hamilton Police Service.



**Facial Recognition Technology (NEC Corporation):** Both the Calgary Police Service (CPS) and Toronto Police Service (TPS) use facial recognition software from NEC Corporation. The CPS uses NeoFace Reveal, while the name of the TPS's facial recognition tool is unconfirmed. The Edmonton Police Service (EPS) has also recently announced that it plans to begin using facial recognition technology by later in 2020. The Ottawa Police Service conducted a 3-month pilot test with NeoFace Reveal ending in March 2019, and is not currently using it.



**Social Network Analysis:** The Calgary Police Service imports networked relational data from Palantir Gotham into IBM's i2 Analyst Notebook and uses IBM's built-in algorithmic social network analysis tool to identify key players and central actors in social networks.

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## Algorithmic Policing Technologies in Canada: At-a-Glance

Note: An 'x' does not necessarily indicate confirmation that the law enforcement authority is not using a particular technology, but may instead mean only that the authors did not find evidence that definitively indicates that the service is using that technology.

	RCMP	ON	CPS	SPS	TPS	VPD	Other
Location-focused algorithmic policing	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b> (But interested)	<b>Yes</b> GeoDASH algorithmic policing system	<b>x</b> Edmonton: Boyle Street experiment (past)
Person-focused algorithmic policing	<b>x</b>	<b>Maybe</b> Ministry of Attorney General feasibility study: pre-trial detention risk assessment	<b>x</b> (But is using Palantir Gotham, with known predictive policing features)	<b>Yes</b> SPPAL	<b>x</b>	<b>x</b> (Strong opposition)	<b>x</b>
Social media surveillance	<b>Yes</b> • Social Studio (Project Wide Awake) • April 2020 public tender (Solicitation number: M7594-184225/B)	<b>Yes</b> • Ontario Provincial Police: ICACCOPS  • Ottawa Police Service: Ottawa Police Strategic Operations Centre (OPSOC)	<b>x</b> (But has written policy for gathering social media data)  Past: Media Sonar	<b>x</b>	<b>Unconfirmed</b>  Meltwater / Sysomos (used in past; current status unknown)  Past: Media Sonar	<b>x</b>	
Facial recognition	<b>Yes</b> Clearview AI (currently suspended)	<b>Yes</b> Clearview AI tested by: Peel, Halton, Ottawa, Durham, Niagara, Hamilton  Past: Ottawa conducted 3-month pilot with NeoFace Reveal (no longer using)	<b>Yes</b> • NeoFace Reveal (NEC Corporation) • Clearview AI (tested by officers)	<b>x</b>	<b>Yes</b> • NEC Corporation (since 2018) • Clearview AI (tested by officers)	<b>x</b>	<b>Yes</b> Edmonton plans to implement late 2020, and tested Clearview AI
Social network analysis	<b>x</b>	<b>x</b>	<b>Yes</b> Palantir Gotham + IBM i2 Analyst Notebook	<b>x</b>	<b>x</b>	<b>x</b>	Public Safety Canada (2012 study)
Automated license plate reader	Yes: Ontario, British Columbia, Saskatchewan, Alberta, Nova Scotia, Quebec, and Prince Edward Island						