

# Ombuds AI

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## Abstract

The integration of artificial intelligence (AI) offers the promise of developing open-source frameworks and tools that incorporate social and behavioural determinants of health data, thereby fostering an empirical understanding of the causal factors behind patient complaints. Through comprehensive complaint capture and analysis, “Ombuds AI” has the potential to realize the vision of delivering equitable, high-quality and sustainable healthcare.

## Introduction

John McCarthy and colleagues coined the term “artificial intelligence” (AI) in a workshop at Dartmouth College in 1955 (McCarthy et al. 1955), the same year that Jonas Salk developed the polio vaccine (Tan and Ponstein 2019). Despite the hype of AI in healthcare today, the benefits of the polio vaccine still trounce those of AI in every measure – notably, in saving lives and preventing disease worldwide.

Jonas Salk’s commitment to eradicating polio demonstrates his advocacy for public health and the importance of making medical advancements accessible to all. If Salk were thinking of the promise of AI for healthcare data, such as patients’ complaints data, he would encourage us to think inclusively and expansively. Is it possible for one person’s complaint or suggestion for change to help another person? How so?

## Official and Unofficial Patient Complaints

In November 2023, the ombudsman’s office of Ontario reported a 33% jump in official complaints, nearly half of which were about upsetting experiences in one of the province’s hospitals. The office received 4,388 official complaints over the 2022–2023 year period, 3,235 of which came through its call centre and the remainder through written complaints (DeClerq 2023).

Weeks later, following a two-year investigation by the Investigative Journalism Bureau (IJB) at the Dalla Lana School of Public Health and a report in *The Toronto Star* (Cribb et al. 2023), the public learned about tens of thousands of previously unseen health system concerns expressed by survey respondents who had undergone care at 57 Ontario hospitals and health networks. Further to *Freedom of Information and Protection of Privacy Act* (1990) requests, the IJB examined 120,000 survey responses published under the auspices of historic NRC Picker Patient Satisfaction Surveys (IJB 2023). For the purposes of this essay, I refer to these IJB data as “unofficial complaints.”

Craig Thompson, the Ontario ombudsman, attributed the root cause of the spike in official complaints to “a glaring lack of access to primary care among Ontarians, which has resulted in added pressure in other areas of the system that people turned to in lieu of primary care access” (Casey 2023). In relation to these official complaints, Thompson’s interpretation certainly seems plausible. Though maybe his root cause analysis requires a caveat: a lack of access to primary care that either prioritizes prevention or mental health.

There is always what AI scholars call a hidden “ontology” (a set of concepts and categories that reveals their properties and the relations between them) explaining any root cause. In this case, the ontology is a mathematical representation of the dynamic relationships of hundreds of factors hindering or promoting reliable and sustainable primary care access in Ontario. Looking beyond Ontario, what is the ontology of patient complaints about the delivery of quality healthcare in Canada today? How might we think of an ontology inclusively?

In relation to unofficial complaints, patients filling out the survey forms that are examined here are a small fraction of those being admitted to hospitals in any province or territory. And even if we could survey every patient and family member

admitted to hospitals and ambulatory care clinics, we would still be missing the mountains of complaints posted on social media platforms such as Reddit, Quora, Facebook and X.

Here is where AI can step in powerfully. Imagine if we could access *all* unofficial complaints in real time and create an AI-style ontology. This would bring to the surface problems that are fixable in the short and long term, an ontology that explains and classifies the good, the bad and the ugly of our health system (Oliveira et al. 2015).

### **The Promise of Ombuds AI**

AI can turn the chapter on legacy models of reactive patient ombudsman complaints. What I refer to as “Ombuds AI” can be proactive and inclusive. By capturing and making sense of complaints in holistic ways, Ombuds AI can help deliver on the vision of equity-focused, high-quality sustainable healthcare. AI holds out the promise to develop open-source AI frameworks and tools that incorporate social and behavioural determinants of health data into a framework that promotes an empirical understanding of the “why” behind patient complaints.

There is no Ombuds AI yet but there can be, and Canada should lead the way. Ours is a single-payer system committed to the Government of Canada’s pan-Canadian health data strategy (Government of Canada 2022). As such, Ombuds AI can help promote a world-class, high-quality, equitable health system – using math and dispassionate observation in real time.

Ombuds AI would not register a “complaint” or observation as just good, bad or ugly. The Ombuds AI’s observations are mathematical and impersonal in nature. A complaint under the umbrella of the AI-style ontology, I envisage, can be good and bad at the same time, as in *The Fire Cat* by author Esther Averill (Averill 1960). Averill initially portrays Pickles as a homeless cat, a cat bully. However, after being taken in and cared for by Mrs. Goodkind, Pickles attempts to behave well but struggles with irrepressible impulses. Mrs. Goodkind, compassionate and understanding as she is, conveys to Pickles (and to child readers of this perennial favourite) that cats can be good and bad, as can we all.

Thinking about medical complaints through the eyes of Mrs. Goodkind suggests to me that every official or unofficial complaint about our health system, through the lens of dispassionate Ombuds AI, can be seen as potentially good because of its capacity to improve holistic patient care for all Canadians. For example, my mother, a psychiatrist, has told me over the years that she was a “pushover,” never able to say “no” to her patients. This led her to hire a “battle axe” secretary who would not let anyone through to her uninvited, in person or by phone. Many skilled but soft-hearted clinicians feel they need this protective shield. Nevertheless, patients suffer as a consequence. They may feel rebuffed, not listened to and that their needs are neglected.

Official and unofficial complaints are often not about the care itself but about waiting for the care and the inability to get the care. Ombuds AI might therefore suggest that this calls for (1) a formal training for medical receptionists in appropriate ways to respond to patient concerns and (2) an “authentic leadership” training for clinicians on how to be kind and empathic but also set firm limits.

Besides unimaginably long wait times to receive care and failures to respond to phone calls or e-mails, patients are angry that their complaints are often dismissed as “trivial,” “imaginary” and “not worth investigating.” This especially applies to elderly people or people with a mental health diagnosis or a mental disability. The practice is known as “diagnostic overshadowing,” a process whereby *one* diagnosis – a mental disability, for instance – overshadows another so that a serious medical illness remains unnoticed (Shefer et al. 2014: 1). Ombuds AI, if determining this to be a frequent occurrence, could encourage patients and families to insist on thorough assessments and urge training facilities to teach clinicians that multiple diagnoses co-exist.

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### **Ombuds AI Can See Nuance in Patient Complaints**

As I combed through the IJB unofficial complaints data, I learned that very frequent complaints are about the under-treatment of pain. Because of the opioid crisis, doctors have become increasingly reluctant to prescribe effective pain medication even after surgery or in the case of chronic severe pain in the elderly. This is a very difficult period for people in pain, and this presents a paradox because we do have effective means of alleviating it. The upside here is that medical faculties have the opportunity of training doctors in the skills needed to differentiate between physical pain and the pain of drug withdrawal. Again, Ombuds AI can detect the tension between these different forces and recommend the right balanced policy intervention.

One often-heard complaint I see in the IJB data is the very long time it takes to make a referral from doctor to doctor. The reasons seem diverse – incompetent go-betweens; wrong phone or fax numbers; the lost art of acknowledging the receipt of a referral, which should be done quickly (even when an actual appointment date is a long way off); the hidden system of ranking referrals and filling cancellation times; and, of course, the primary care physician shortage. Ombuds AI, computing

the relative strains on our system gleaned from patient complaints, may recommend that the solution is to graduate more doctors of different specialties – factoring in the available public data in real time on which physicians are working part time versus full time and where.

## Conclusion

One major takeaway I have from the IJB report is that patients under stress and in pain are exquisitely sensitive to how they are treated. They need sympathy, respect and attention. They are not “cases.” Ombuds AI would remind us of that. **HQ**

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