AI statecraft heating-up: the automation of governance through Canada's Chinook case study

Nicolas Chartier-Edwards
INRS – Urbanisation, Culture, Société
ORCID : 0009-0006-3775-924X
nicolas.chartier-edwards@inrs.ca

Marek Blottiere
Société des Arts Technologiques
mblottiere@sat.qc.ca

Jonathan Roberge
INRS- Urbanisation, Culture, Société
ORCID : 0009-0001-3558-9260
Jonathan.Roberge@inrs.ca

Abstract
In the years 2020–2021, journalists, lawyers, scholars, and civil society actors noticed an unusual spike in the refusal of francophone African immigrants in Québec, Canada. While Immigration, refugee and citizenship Canada's systemic racism problem were already documented, the novelty appeared to be how standardized and sometimes, "nonsensical" the reasons given to many of the applicants were. This eventually prompted a lawsuit against IRCC in which it was revealed that a new piece of software called "Chinook" had been deployed since 2018, approximately at the same time application refusal started spiking. Online and media-fueled speculations culminated in a broad debate about whether Chinook was an artificial intelligence-based technology. Such controversy, for instance, unfolded during parliamentary consultations in which it was finally disclosed that Chinook was not AI per se., but more of a half-baked automated interface. The present article aims to understand how the performative ambiguity of Chinook informs on the progressive becoming of the Canadian Federal state and its immigration control practices in the current Machine Learning hype. Furthermore, it seeks to understand how the interlacing of public–private partnership, in which the private sector is mobilized to produce AI-driven technology, recursively transforms the exercise of governance and governmentality. We argue, through the Chinook controversy and its unfolding, that there is a shift occurring where AI becomes ever more central in statecraft "anarchitecture" and cybernetic adaptability.

Keywords : Artificial Intelligence · Chinook · Canada · Immigration · Governance · State

1 Introduction

Scandals, affairs, and controversies appear in different shapes and sizes when it comes to the intermingling of digital technologies, statecraft and surveillance. From the Snowden revelations on the NSA's project PRISM and the powering of predictive policing software (PredPol) with artificial intelligence, through to Clearview AI's violation of Canadian privacy laws (Greenwald et al. 2013; O'Neil 2017; Thompson 2021), what constitutes the boundaries of privacy, power and now "hyper-security" are being put to the test. In 2021, amidst an ongoing spike in refusal of temporary student permits in Canada, it was revealed through a lawsuit against Immigration, Refugees and Citizenship Canada (IRCC) that a new technology called Chinook had been deployed in-state behind closed doors (Champagne 2021; Fontaine 2021; Canadian Federal Court 2021). It was also revealed, through public consultations, that IRCC handled the coding and deployment of the technology in rather shady and opaque ways (House of Commons 2022). This lack of information, combined with knowledge that IRCC was experimenting with AI since 2018 (CBC Radio 2018), quickly fomented a debate in which civil society actors raised questions and started speculating on the technology's very nature and its potential impacts, i.e., if it was the main cause of the aforementioned spike in refusals or if it was instead a manifestation of deeper, more systemic forms of racism *made in* Canada (Balakrishnan 2021; Champagne 2021; Tao 2022). What did automation and artificial intelligence have to do with immigration in the first place? How could evermore complex and agile computer models handling ever-bigger troves of data be more robust and efficient, yet fair and in-line with Canadians' image of their country as being democratic, open and welcoming? If Chinook was indeed a machine learning system, why hasn't IRCC ran an algorithmic impact assessment and made it public?

These questions mobilized a multitude of actors—from the media to lawyers, politicians, civil rights movements and scholars—as they all agreed to disagree on the technology operating inside of IRCC's systems, the extent of its role in the refusals spike, and its broader meaning towards the possibility of a future, if fuzzy and dynamic incarnation of an AI-laced state in the image of what sociologist Louise Amoore calls a new "machine learning political order" (2022a). Eventually, the controversy as it appeared in the media mutated along the lines of two historical Canadian solitudes, francophones and anglophones: many Quebecois outlets argued, for instance, that the

province was treated inequitably because of how French-speaking Africans where so easily rejected (Boissonneault 2022; ; Schué 2022).

The questions concerning Chinook per se slowly vanished from the public debate in a sort of irresolute public closure. From a Critical AI Studies point of view, however, such a rich example is ripe for an applied, in situ study on the becoming of politics, governance and surveillance at the dawn of proliferating deployments of machine learning and other "smart" technologies in public administration's day-today operations—but also more generally of what constitutes statecraft in and of itself (Roberge et al. 2019, 2022; Fourcade and Gordon 2020; Amoore 2022a, 2022b). Even if the speculations over Chinook AI's consistency were eventually "defused" or even "debunked" by IRCC, the fact that multiple actors from a broad range of domains all *perceived* that it was AI due to its speculated influence on the whole immigration process speaks to the *performative ambiguity* and *symbolic power* of artificial intelligence when apprehending core social and political realities such as immigration. Using Chinook as a case study, whatever the true "nature" of its technology, allows to analyse, in an almost incursive or predictive way, what AI power can look like and how civil society actors react to it. Our argument is that the perception and reality of Chinook's technology spilt and were woven into one another such that together, they fed the social and political construction of Chinook as a powerful and telling *dispositif* (Foucault 1997, 2001: 298–329). Moreover, it is only by attending to these perceptive and material éléments *together* that we can make sense of how today's AI is rapidly "super-charging" surveillance architectures, or, as we will argue, anarchitectures.

This article is divided in two interrelated sections. In the first, since the Chinook case is highly "Canada-centric" and in need of clarification, we describe what it is and how it unfolded from atechnological, socio-cultural and governance standpoint[1]. The internal, if at times self-flattering

[1] 1 To produce the description of Chinook, we used a snowball method to acquire pertinent public documents in the Federal State's website search engine. We also used this method to collect a multitude of journal and blog article, spanning well-established Canadian media such as CBC Radio-Canada, The Globe and Mail, The Toronto Star and Le Devoir, to law firms of individual lawyer blogs. These documents were then condensed in an unpublished report written by Nicolas Chartier-Edwards during the spring-early summer of 2022 for the Project ShapingAI. The description of Chinook found in this present article is thus mostly a condensed version of this unpublished report, actualised with the latest publications on the matter.

description of the model used by IRCC is mobilized for the sake of comprehensiveness, but we also discuss how the technology has been problematized by state "outsiders" to shed light on thedifferent perceptions actors have of it and the different gaps and grey zones that separate them. The aim of the section is to show how the very definition of an AI model is what is at stakes in a networked, yet conflictual milieu. The second section is a theoretical effort, in a very grounded-theory fashion, to understand how the *performative ambiguity* and symbolic power of AI, coupled with its real technological power, transforms the state once the technologies are deployed in public administrations. While anchoring the Chinook case in the already abundant literature on digital surveillance and dataveillance, this contribution aims to demonstrate how the integration of diffuse AI systems in States shifts governance and governmentality away from classical "top-down" bureaucracies to "distributed horizontal" systems based on public–private shared dynamic data-acquisition and analytics. The concept of "anarchitecture", inherited from the long lineage of cybernetic culture theory, is mobilized to illustrate that this distribution of power between actors through technological systems does not amount to a more robust, coherent and monolithic state organisation, but rather to a fuzzy, sometimes messy, incoherent and, at worst, conflictual mode of government.

2 What is Chinook? The search for a definition between Techné, culture and governance

The current deployment of ambient computing, along with the multiplication of network-based communicative objects, the individualisation of access points through personal computers and smartphones, and the production of data coils that guide, inform or even nudge our actions, together confirm that humans now fully co-exist with digital objects in what philosopher Yuk Hui, along with many others, call a "digital milieu" (Bratton 2015; Hui 2016; Beer 2022; Han 2022). Understanding Chinook's place in the world and why and how it came to be entails identifying how the software works and how it interacts with other digital objects, but also what its interactions are with humans and, from there, broader socio-cultural and political contexts?

To begin, it is plausible that Chinook's specificity could be found in IRCC's computational architecture. The information we used to formalize a definition of Chinook as ca technological tool was collected through a "snowball method" conducted through the search engine of IRCC's website. We chose to only refer to publicly available, i.e., official information on the technology

to understand the extent of a certain "black-boxing problem". IRCC first began by defining Chinook in the following way:

> Chinook is a Microsoft Excel-based tool developed by Immigration, Refugees and Citizenship Canada (IRCC) for temporary resident application processing to increase efficiency and to improve client service […]. Chinook is a tool designed to simplify the visual representation of a client's information. It does not utilize artificial intelligence (AI), nor advanced analytics for decision-making, and there are no built-in decision-making algorithms (Government of Canada 2022b, paragr. 1–3, emphasis added)

There is already important information to be assessed here—atop the flat-out denial that Chinook is an AI based on a lack of decision-making algorithm in the software, we also learn that the objective behind the software was not the automation of visa treatment but the simplification of client information through visualization. According to IRCC, Chinook is a digital tool designed and coded "in-house" by its personnel. It is an interfacial technology that is embedded within Microsoft Excel, meaning that it is viewed by humans as a visual spreadsheet. From Excel, Chinook interacts with the Global Case Management System, a broader database that tracks and records the information required to process citizenship and immigration dossiers (Government of Canada 2005). The IRCC officers (or decision-makers) view and interact with the displayed information through different modules, all centralized in a single interface or dashboard. Importantly, this organization through condensation of documents allows the decision-maker to treat multiple dossiers by grouping them—that is, sorting them out through bundling and hierarchization (Fourcade 2021). Chinook furthermore allows the IRCC officers to produce risk indicators based on previous dossiers that will be validated or invalidated by superior officers. If an indicator is validated, it will then be recorded in the CGMS. Finally, in what IRCC describes as a "privacy-centric approach", Chinook does not store any data or client information. This "privacy-centric approach" is enforced to guarantee that IRCC is not creating any new database of personal information, which could risk being less secure. Officers must record all decisions in the GCMS as it must remain the only database (Government of Canada 2022a, paragr.9). This whole operation of dossier treatment can be understood as a mundane, yet fuzzy and uncertain datafication process (Van Djick 2014; Zuboff 2020). As an interfacial technology, Chinook shows, frames and translates applications in a way that is considered adequate for a specific actor with a particular task, namely IRCC officers in charge of triaging. While the classification mechanism is understood to be the streamlining-optimization machine and vice versa, there is only few guaranties to that.

The document quoted above, which is the clearest description of the software at the time of writing, was released after waves of speculations by both Canadian media and lawyers about the nature of Chinook, due to the aforementioned black-boxing issue. In their effort to tone down or neutralize speculations on the technology at work in Chinook, IRCC stated in the aftermath of the public consultations that there is no AI, algorithmic or advanced-analytics technology involved in the software. Chinook must be understood as an interface technology, plain and simple—that is, not leaning toward any automation of decision making nor meaningmaking. The problem, of course, is that the matter is not a case of white versus black but one where grey is in vogue. Chinook "visibilises" the applicants for the decision-maker through a combination of information extracted from the GCMS and certain "risk indicators" created and reviewed by IRCC officers based on past applications (Comité permanent de la citoyenneté et de l'immgiration 2022). The visibilization process can be understood first on a visual level, but also and necessarily on a symbolic level. Chinook literally renders specific information on the application visible in the spreadsheet and adds risks indicators to generate a list of possible reasons for refusal, which are, again, literally viewed by the decision-maker. It is from this visual display that they can approve or, in the case of refusal, choose one or more motives from a pop-up menu before the decision is recorded in the CGMS. Yet, the entire operation is to be considered meaning-full or symbolic as the combination of the current application, the risk indicators based on previous past decisions, and the reasons for refusal constitute the broader and rather complex realm of possibilities from which the decision-maker will "make a decision", even though IRCC asserts that "Chinook does not change the way decisions are made" (Government of Canada 2022b, paragr.8).

Chinook, like all technologies, exists as a social phenomenon beyond its pure coding. The controversiality that followed its deployment attests to its social mode of existence as well as digital situadeness. As philosopher Yuk Hui states, we humans also live and operate in this digital milieu, as "[…] we Facebook, we blog, we Flickr, we Youtube and we Vimeo" (Hui 2016: 47). Digital technology and platform media, powered by more and more flexible algorithms, contribute to our understanding of things by classifying and recommending to us the information and content through which individuals apprehend the world, amounting to a privatisation of information engagement (Farrell and Fourcade 2023). This holds true for our understanding of borders, border security and migration, which all exist in the digital milieu (Amoore 2022a; Chouliaraki and

Georgiou 2022). Chinook's socio-cultural mode of existence is thus a representational one which deals with the automation and digitalization of power and surveillance. It is also a debated one that can be analysed through the different discourses on and off-line and how they spill and weave into one another from one venue to the next—in this particular case, firstly through three public consultations wherein different experts were invited by a state committee to testify on the matter[2] secondly on the web, where actors from different domains debated the "whys and whats" of Chinook; and finally from legacy media the like of *Le devoir* and *Radio Canada*/CBC, but also in more specialised forums devoted to legal issues.

One of the key elements at work in Chinook's *performative ambiguity* is the relative shroud of opacity surrounding it, translating—in the absence of information available on the technology—, its conception and deployment, i.e., the black-boxing issue mentioned earlier. This vacuum in information availability opened up space for speculation by many different actors, mostly on the extent to *which Chinook could be considered an artificial intelligence-based technology.* During the consultations of February 3rd, 2022, for instance, immigration lawyers Lou Janssen Dangzalan and Wei William Tao were highly critical of both IRCC's general practices, which are themselves very opaque, and of the lack of information available on Chinook (House of Commons 2022). Even the official Access to Information procedure proved to be tedious. As Mr. Dangzalan stated, "we've tried for the last 60 days to do some ATIP[3] requests and what we're getting is a lot of push-back. We keep getting extension delays of about 180 days or even a year on our requests, essentially trying to push the issue forward" (House of Commons 2022: 6). Referring once again to the issue of "black boxing", both lawyers argued that this software was used since 2018 "under-wraps" and that IRCC's justification for which "Chinook is not AI, and therefore doesn't need the oversight" (House of Commons 2022) is quite troubling and revealing of what AI governance's shortcoming would look like. Mr. Thibault Camara, president of the organisation Le Québec c'est nous aussi, restated the same critiques, going further to say that IRCC's opacity predates Chinook

[2] Our sampling was indexed to a Zotero library. It is constituted of 10 official government publication on AI, Advanced analytics, softwares and engagements toward the use of these systems; 13 blog publications from different canadian law frims; 22 articles on Chinook and the immgiration refusal spike controversy from different media, including CBC news, Le Devoir, Radio-Canada, Canadian Immigrant, TVA, The Logic, The Toronto Star, The Tyee and Quartier Libre; 3 public consultations held by the House of Commons. An exhaustive and comprehensive reading of these different source material was then summerized in an internal report for the ShapingAI Canada team.

[3] Access to information and privacy online request.

so that it must be considered when talking about the way technology is used in immigration. Like both lawyers, he asserted that "we need an independent and clear study; we need to be able to know what is going on in Chinook's black box" (House of Commons 2022: 17). The other two consultations that followed were less about Chinook and more about the issues of systemic racism that plagues IRCC, as revealed in the Pollara[4] report (Boudjikanian 2021). Still, what is common to the three consultations analyzed is that everyone, whether politicians from the committee or witnesses, had no idea to what extent Chinook was AI. This was a case of shared confusion. From there, it becomes possible that such lack of information contributed to the progressive abandonment of the 'technological question' in policy circles but also, to be seen shortly, by the media.

Many actors took the debate to the net, investigating and posting arguments about the technology at work behind Chinook on their personal blogs. Mr. Tao argued that Chinook qualified as an AI based on the degree of automation at work in the process:

> The Chinook directly assists an Officer in approving or refusing a case. Indeed, Officers have to apply discretion in refusing, but Chinook presents and automates the process. Furthermore, it has fundamentally reversed the decision-making processing, making it a decide first, justify later approach with the refusal notes generator. Chinook without AI generating the framework, setting up the bulk categories, automating an Officer's logical reasoning process, simply does not exist. (Tao 2022: 15)

Again, the lack of transparency was posited as the fundamental issue behind the incapacity to understand the nature of Chinook. As stated before, not only did the "privacycentric-approach" make it difficult to understand what part in the decision-making process was made by the agent and what was automated, but it was later discovered that the IRCC instructed its agents using Chinook to limit as much as possible the divulgation of information about it to prevent any form of system gaming or cheating, as discovered by the Gerami Law Firm: "Although the playbook states that the IRCC should be transparent with its use of AI, limited information should be shared to prevent applicants from taking advantage of the system" (Gerami Law 2022, paragr.8). This instruction contradicts many statements of transparency found on IRCC's website (mostly publications about AI and advanced analytics) (Government of Canada 2021b, 2022a, b).

[4] The Pollara report was produced and published by the firm Pollara Strategic Insight in 2019. The report revealed that racist behaviors, ranging from microaggressions to promotion denial, plagued IRCC's workplace. Of interest to us is the fact that employees warned that such work climate could have an impact on case processing.

In turn, these consultations and law-imbued blogs informed what appears on media publications as if the latter were a form of translation of the former. Drawing on such multiplicity of content, journalist tried to synthesize the controversiality to make it digestible for the public. The media coverage splits into four different, yet interrelated frames: namely (i) the controversy about the spike in African French-speaking immigrant refusals; (ii) IRCC's already well-documented lack of transparency; (iii) IRCC's issues of systemic racism documented through the Pollara report; and (iv) how the tensions between the Canadian federal government and Québec's provincial one caused the whole situation. What these frames have in common is how automation tools being deployed in the field of immigration, like Chinook, are never contextually or "fully" problematized. There is no bottom line here, or any sense that the issue has been treated for all of its merits and, especially, flaws. Rather, Chinook was always treated as an evanescent moment, or a piece of another controversy. What's more, and consistent with public consultations as well as how lawyers portrayed the situation in dedicated blogs, legacy media coverage faced time and again the ambiguity of the technology at play. There too, the lack of information on the extent of wether Chinook is AI or not influenced the under-problematization of Immigration Canada's new regime of automation since no one could exactly "get a grip" on it.

Yet again, in such ambiguation of Chinook, the State's action and the narrative it puts forward played an instrumental role. Indeed, Chinook was deployed behind closed doors in 2018 to increase the efficiencydossier treatments. Over the course of its life, the program has been updated several times so that there are several iterations of Chinook (Government of Canada 2022b) and the IRCC's publications often make use of elements of language in the area of "optimization" (McKelvey and Neves 2021). "Efficiency", "productivity", and "speed" figure prominently, showing that the deployment of Chinook is justified by IRCC through the assertion of a necessity for a faster treatment of dossiers[5]. As quoted before and still according to IRCC, Chinook increases efficiency and improves client service by "[…] decreasing the impacts of system and broadband latency, thus improving processing times" (Government of Canada 2022b, paragr.1). They even assert that the way information is now displayed "allows for increased GCMS user productivity"

[5] It was well documented by the media that IRCC had fallen behind in the treatment of dossiers from applicants wishing to migrate to Canada, especially those who wanted to acquire a permanent residence in Québec (Schué 2022; Chevance 2022).

(Government of Canada 2022b, paragr.2). Finally, IRCC goes as far as to quantify the efficacity of Chinook. According to them, the software was submitted in December 2020 to a performance check. "The results determined that there was an 18–30% gain in efficiency, decreasing the impacts of system and broadband latency and allowing for shorter review time per application hence increasing productivity" (Government of Canada 2022a, b, paragr.11). This fixation on efficiency, framed as the speeding of operations rather than the qualitative treatment of applications, evokes a certain sense of managerial and technological hubris and, when linked with the previously mentioned backlog "crisis", would allow to understand—from a theoretical standpoint that will be key to the next section—how Chinook end up transforming or refurbishing itself as *a technology of steering and acceleration.*

3 The cybernetisation of immigration and surveillance: AI-anarchitecture and recursivity

From what preceded, it is certainly noticeable that the "speeding up" of the immigrant's files becomes the sole finality of Chinook, discarding other aspects of the process, such as its qualitative *raison d'être*. Chinook is actualized by the streamlining of applicants' dossiers in the recursive visualization described earlier, upon which the IRCC officer will produce a decision. Many aspects of the applicant's dossier are excluded from this framing while aspects of precedent cases are used to manufacture risk indicators that, when combined with the extracted information, create a breeding ground for the standardization of the immigration process that resolves itself, in this case, in bulk refusal. Interface theory demonstrates that any sort of dashboard is never "neutral" and that they act as "control" technologies by visually presenting users with a defined and closed realm of possible operations within the software. The interface *links* the user and the machine it desires to interact with; the operation and language used is one of command. As Bratton rightly points out, "an interface necessarily limits the full range of possible interactions in a specific and arbitrary way. Any interface, because it is a specific summary or a framing, must eliminate or make invisible a whole range of other equally valid possible interactions. […] Without coercing us, the interface cannot properly interface anything to us" (Bratton 2015: 221). Indeed, it's pretty much all about *steering*. The immediate software, the officers themselves who are under the pressure to increase their productivity to solve the latency crisis, as well as the whole architecture of IRCC, exist for the sole purpose of channeling immigration in the fastest way possible, but with the best and most operationable of switches.

Chinook hence presents an ideal case study of what we want to call an encompassing, if fast-growing, "cybernetization of governance", and by extension, of surveillance (Roberge et al. 2022). The term refers to the progressive mutation of cybernetic theory from the field of science and technology to cultural theory and now, to a full-fledged governance-management theory, which are all interrelated in a coil-like manner: namely, i) the first-wave cybernetics in computer science (Wiener 2013); ii) the early cultural theories on cybernetics as culture (Plant 1996; Land 2018) the sociological literature on statecraft from the incursion of AI, advanced analytics and other machine learning technologies (Fourcade and Gordon 2020; Crawford 2021; Amoore 2022a; Beer 2022; Halpern 2022). Indeed, according to Baptiste Rappin (2018), cybernetics can be understood precisely as a theory of contemporary governance following the etymology of the word. The Greek word kubernêtès literally refers to a boat navigator and, likewise, kubernêtiké to the art of navigating or government. The dynamic of circularity is at the core of both cybernetic theory and deployed cybernetic systems. This idea of circularity actuated in the process of recursivity, the aim to "filter out" the noise to reduce entropy after each "rotation", which became central to the upcoming cultural theory on cybernetics. Indeed, one of the key aspects of Sadie Plant's concept that ties in with *performative ambiguity* is that cybernetics is not as much about "control" as it is about the illusion of said "control". There are "no plans", only an impression of planning (Plant 1996). Digitally powered social systems do not follow a grand plan, but are immediate, ever-fluctuating processes that mobilize multiple contributions loosely coordinated through the feedback loops. As Plant states, such systems "appear to be ripe for development: speculation, regulation, government control. Both states and corporations would love to move in. […] Demands for surveillance, regulation, and censorship proliferate. But cyberspace—or today's 'artificial intelligence-ization' for that matter—is not that sort of place. In any case, such zones have always been out of control" (Plant 1996: 36). From a symbolical and cultural point of view, what matters is not the reality but rather, its perceived reality. It is the degree of belief that informs governments, corporations and particular behaviours and attitudes. Nick Land frames this multipartite construction as inherently chaotic, where something is always unsupervised, thus the idea of "*anarchitecture*" (2018). Digitally powered constructs are shallow and inherently conflictual, and this conflictual ontology is precisely what makes them volatile, dynamic, and unstable: they are coherent in their incoherence and incoherent in their coherence. A multiplicity of actors and actants converging into user positions actuates in the multiplication of manipulation and protocols,

creating a space ripe for glitches, lags, and noises. As the Chinook' case illustrates, cyber-states of today build just on that. They themselves are anarchitectures as they strive for technological adaptability, constant demoing of both technologies and policies, distribution of power amongst a wide variety of agents, and distanciation mechanisms that dissimulate actors through automated models. Cybernetics and feedback are deeply intertwined in these as they are growing to constitute the very core of contemporary governance. The actual turn to governance by data must be understood as a cybernetic process which disrupts the classical statistical modalities of modern governmentality. "Algorithmic governmentality updates in real time because it immediately swallows any new data, matching it with old information to offer new correlations, plastic, mobile, and modelable at will" (Rappin 2018: 107)[6]. Chinook, again, is a prime example of this anarchitectural cybernetization of states.

In June 2021, IRCC subcontracted the "re-platformisation" of Chinook to the private company Accenture (Government of Canada 2021a). This initiative is, among many other forms of subcontracting to the private sector, justified by the invoking of a grand "digital transformation". IRCC's website states that :

> To remain competitive in the global marketplace and support the Government of Canada's efforts toward digital-first, user-centered programs, the Department is undergoing a Digital Transformation. […] IRCC is leveraging a multitude of third-party firms to support its transformation and COVID response. These firms include McKinsey & Company, Deloitte, Accenture, and Gartner. Ultimately, IRCC's goal is to build strong internal capacity to develop, implement and sustain this transformation. IRCC has undertaken significant innovation and transformation […] realized through partnerships with industry-leading third party vendors. (Government of Canada 2021a, paragr. 1–2)

Indeed, Accenture was granted a sum of $1,826,981.49 to "develop and implement a Power Platform Minimum Viable Product to replace Chinook" (Government of Canada 2021a, paragr.8). Surprisingly enough, part of the justification seems to revolve around "basic" tasks such as providing bilingual treatment of dossiers[7]. While French-Canadian IRCC officers can rejoice in the deployment of a fully bilingual tool, the partnership between IRCC and Accenture is never elaborated on, neither are the reasons for this re-platforming. As Louise Amoore states in her paper,

[6] Our translation.

[7] The Chinook tool is being re-platformed from Microsoft Excel to the Cloud and is currently under early development internally within IRCC. The current iterations of the Chinook tool allow some spreadsheet headings to be shifted between English and French per user language preference. Re-platforming efforts will see a fully bilingual tool. The re-platforming is expected to be completed by the end of the 2022–2023 fiscal year. (Government of Canada 2022b, paragr.7).

Machine learning political order, "the machine learning model itself has extraordinary resilience in the face of complete moral and political failure because a weight can always be adjusted, a threshold modified, a parameter tweaked" (Amoore 2022a: 11–12). The mobilisation of automated technologies within state operations moves it away from old models of rigid "Weberian" bureaucracies and toward dynamic and spontaneous governance, and the re-platforming of Chinook demonstrates this shift.

Framing Chinook as a success in terms of acceleration process, as seen in the IRCC's narrative, was not sufficient to neutralize the critique made toward the state that the software could have played a role in the refusal spike. However, drawing on the "technological fix" trope, the subcontracting of a new AI-powered platform to the private sector did diffuse the controversy in some way as Chinook is now treated as being already "obsolete". Beyond a strict showcase of the newfound technological adaptability, this situation is also a prime case of the paradigm shift happening, from testing to *demo-ing*: "machine learning circumvents modern notions of testing in science and engineering by turning to the trial and trialling as experimental technologies" (Amoore 2022a: 13; see also Halpern 2022). When deployed within state apparatuses, machine learning ceases to strictly refer to technologies, but spreads and transforms governance and surveillance beyond the technologies. Finding inspiration in Latour's philosophy of design (2012), Amoore argues that digital technologies deployed in machine learning governance are never exactly "built" with a proper purpose, but "designed" in *statu nascendi*. Usually, building something, implies the anchoring of new artefacts in the world as a finality (Heidegger 1958; Arendt 1972a, b), while designing implies a certain form of returning, of iterating, of *redesigning*. Digitally powered technologies, precisely because they operate in a milieu made of protocols, data and adaptative algorithms, can always be altered or reconfigured; this newfound radical modularity forces one to understand both the technologies deployed and the state as eternal prototypes, who's speed of adjustment depends not on politics but on the technological drivetrain. This ontology of constant demo pressures state administrators and policymakers in a position of perpetual adaptation, meaning that—as in the Chinook case—technological deployment is not regulated by policies but that *policies are tailored for technological deployment (Morozov 2015; Zuboff 2020; Amoore 2022a).*

As mentioned above, such cybernetization of governance and surveillance must be understood beyond strictly technological terms. The trends towards adaptability and demoing are intimately linked to a new (re)distribution of power between a multitude of actors. Technological black-box aside, the subcontracting of software or digital infrastructure production to the private sector by the Canadian Federal State differs from the subcontracting of material infrastructure such as roads, notably because these companies have their own protocols and goals which end up embedded in the software now populating the state's digital milieu (Star 1999; Crawford 2021). In Canada, once a road is finished, it is the property of the state and of the common. The same doesn't apply to a software or an AI model, of which the full mastery is always distributed between the owner and the producer through updates, fixing, and optimizing until a new version makes the previously purchased one obsolete. Beside Accenture, IRCC notably subcontracted to McKinsey & Company, Gartner and Deloitte for performance assessments, technologies, and strategies to undertake the digital turn (Government of Canada 2021a). Canada indeed seems to be entering a new era of technological, multipartite statecraft, as it has also been flirting with Palantir Technologies Inc. to purchase its big data management platform, *Foundry* (Willis 2021) and, on a municipal level, with Sidewalk Labs (who's parent company is non-other than Alphabet), for the realisation of the now defunct and infamous smart-city project of *Sidewalk Toronto* (O'Kane 2022). The multiplication of software, platforms, and data-collecting smart infrastructures at work in the field of governance consequentially implies the multiplication of embedded private goals *inside* the state (Roberge et al. 2019). Consequently, and as Fourcade and Gordon put it, the digital or dataist turn and its technologies "may also facilitate the deployment of authoritarian forms of political control or serve as a trojan horse by which corporate interests subvert the state's data troves for the sake of price discrimination and value extraction" (Fourcade and Gordon 2020: 86).

This "creeping in" of the private through multiple opaque subcontracts translates into a progressive, slow-burning disengagement of the state from its own digital infrastructures and furthermore, in the distanciation and dissimulation of said actors through automated models, thus blurring the lines of accountability in the event of a technological failure. In the case of Chinook, even if it was coded in-house, the subsequent media confusion and difficulty of understanding among elected officials were only an indicator of the shroud that AI or machine learning multipartite governance can unleash on the democratic process. As Kate Crawford writes, "despite

the massive expansion of government contracts for AI systems, little attention has been given to the questions of whether private vendors of these technologies should be legally accountable for the harms produced when governments use their systems" (Crawford 2021: 198–199). Even if IRCC asserted that the deployment of Chinook didn't disrupt the immigration process, the *Report 8* produced by the CIMM committee does partially address the whole situation, allowing one to make the hypothesis that it indeed, to some extent, caused disruption:

> witnesses highlighted that the system allows "bulk refusals" in a spreadsheet-like screen. […] Chinook "does not retain the notes made by immigration officers in coming to their decisions and does not require the officers to open the evidence that candidates for temporary residency submit." While these functions may affect decisions, IRCC may not know either way. As the department did not and does not consider Chinook to be AI, and able to affect decisions, it did not follow guiding principles for digital transformations in its development and did not have to subject the software to an Algorithmic Impact Assessment. (Comité permanent de la citoyenneté et de l'Immigration 2022: 68)

Put simply, the extent of Chinook's impact on the very practices of decision-makers is disturbingly unknown for an "in-house" product. This blurring of accountability thus engages a discussion on how the cyberstate anarchitecture's adaptability, demo-ing, and new as well as often black-boxed distribution of power creates the context for what we would call the emergence of a *recursive power*. Today, what needs to be considered when studying the new modalities of control, power and surveillance is the dissemination of a public– private multi-*dispositif* fueled by un-unified values, dataharvesting and data-treatment (Aradau and Blanke 2015; Han 2016; Fourcade and Healy 2017; Fourcade and Gordon 2020; Zuboff 2020). Such is a complex form of *anarchitecture*. As Fourcade and Healy state, "many companies keep users maximally visible by integrating their services under a single user profile. It used to be that the state was the only organization with the resources to identify and track individuals across many contexts and settings. No longer" (Fourcade and Healy 2017: 19). What is at stake, in other words, is the dynamic relation between the visible and the invisible. Since control, power and surveillance are increasingly decentralised (not to ironically say democratized), different actors, whether public or private, collective, or individual, now possess the means to rearrange *what* can be seen and *how* it is seen.

4 Conclusion

What is it, in the end, that Critical AI Studies have to say about the dynamics of power and politics, and their new and enhanced performative and symbolical ambiguity? In this piece, the argument drew the contours of an ever-more recursive form of governance that mobilises an ever-growing

anarchitecture of AI, machine learning, private actors, and digital multi-panopticons. Even if Chinook is now confirmed not be the most advanced AI out there, its deployment and the way its effects unfolded on the immigration process can still inform us on the productive potentialities as well ambiguity of recursive power. As AI and digitally-powered technologies optimize themselves through cybernetic feedback loops, the recycling and refurbishing processes that go on in the coils are not purely repetitive but rather *generative* (Roberge et al. 2022). To demo its technologies and policies, the state must "deal" with a certain instability and volatility, namely accepting those while also being an essential part of their becoming. As Amoore puts it, "machine learning's *raison d'être* is to generate outputs that are more than the formulation of rules, something not determinable in advance. What we are witnessing, in short, is a transformation from algorithmic rules conceived to tame a turbulent, divided, and capricious world, to the productive generation of turbulence and division from which algorithmic functions are derived" (Amoore 2022a, b: 7). As a matter of fact, it is by disrupting the immigration process with the deployment of Chinook and, subsequently, handling the emerging controversy with maximal shadiness that IRCC created the perfect justification for its re-platforming, which, as argued before, neutralized the critiques strictly directed at the technology. In this sense, when recursive power is embedded in politics through the deployment of AI's models, platforms, or machine learning technologies, it allows said technologies to become a modality of governance itself, resulting in a form of recursive politics that is, as with the cyberstate from which it emanates, both highly adaptative and evasive.

References

Amoore L (2022) Machine learning political orders. Review of International Studies: 1-17. doi: https://doi.org/10.1017/S0260210522000031

Amoore, L (2022) The deep border. Political geography. doi: https://doi.org/10.1016/j.polgeo.2021.102547

Aradau, C & Blanke, T (2015) The (big) data-security assemblage: knowledge and critique. Big data & society 2 (2): 1-12. doi: https://doi.org/10.1177/2053951715609066

Arendt, H (1972) La condition de l'homme moderne. Calman-Lévy, Paris.

Arendt, H (1972) La crise de la culture. Éditions Gallimard, Trebaseleghe.

Beer, D (2022) The problem of researching a recursive society: Algorithms, data coils and the looping of the social. Big Data & Society 9 (2). doi: https://doi.org/10.1177/20539517221104997

Boudjikanian, R (2021) Federal immigration department employees reporting racist workplace behaviour, says survey. CBC News. October 20. https://www.cbc.ca/news/politics/immigration-refugees-citizenship-racism-1.6217886

Bratton H., B (2015) The Stack: on software and sovereignty. MIT Press, London.

CBC Radio (2018) How artificial intelligence could change Canada's immigration and refugee system. *CBC Radio*. November 18 https://www.cbc.ca/radio/sunday/november-18-2018-the-sunday-edition-1.4907270/how-artificial-intelligence-could-change-canada-s-immigration-and-refugee-system-1.4908587

Crawford, K (2021) Atlas of AI : power, politics and the planetary costs of artificial intelligence. Yale University Press, New Haven and London.

Champagne, R, S (2021) Un outil informatique mis en cause dans la hausse des refus de permis d'études. Le Devoir, November 26. https://www.ledevoir.com/societe/650031/immigration-un-outil-informatique-mis-en-cause-dans-la-hausse-des-refus-de-permis-d-etudes

Chevance, S (2022) Ottawa recrute plus d'employés pour tenter de venir à bout des longs délais d'immigration. Radio-Canada, August, 24. https://ici.radio-canada.ca/nouvelle/1907692/immigration-canada-demandes-delais-ircc-residence-permanente-pandemie

Chouliaraki, L & Georgiou, M (2022) The digital border: Migration, Technology, power. NYU press, New York.

Farrell, H, & Fourcade, M (2023) The moral economy of high-tech modernism. Daedalus 15 (1): 225-235. doi: https://doi.org/10.1162/daed_a_01982

Foucault, M (1997) « Il faut défendre la société ». Cours au Collège de France. 1976. Seuil/Gallimard, Paris.

Foucault, M (2001) Dits et écrits II. Gallimard, Paris.

Fourcade, M & Gordon, J (2020) Learning like a State: Statecraft in the Digital Age. Journal of Law and Political Economy 4 (1): 78-108. doi: https://doi.org/10.5070/LP61150258

Fourcade, M (2021) Ordinal citizenship. The British journal of sociology 72 (2): 154-173. doi : https://doi.org/10.1111/1468-4446.12839

-Greenwald G, MacAskill E, Poitras L (2013) Edward Snowden: the whistleblower behind the NSA surveillance revelations. The Guardian, June 11. https://www.theguardian.com/world/2013/jun/09/edward-snowden-nsa-whistleblower-surveillance

Government of Canada. 2005. Privacy Impact Assessment Summary – Global Case Management System. Privacy Impact Assessment Summary - Global Case Management System - Canada.ca

Government of Canada. 2021. COW-Third-Party Vendors. COW - Third-Party Vendors – June 10, 2021 - Canada.ca

Government of Canada. 2021. Responsible use of artificial intelligence (AI). https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai.html

Government of Canada. 2022. Advanced data analytics to help IRCC officers sort and process temporary resident visa applications. https://www.canada.ca/en/immigration-refugees-citizenship/news/notices/analytics-help-process-trv-applications.html

Government of Canada. 2022. LANG – Chinook Development and Implementation in Decision-Making – March 28, 2022. https://www.canada.ca/en/immigration-refugees-citizenship/corporate/transparency/committees/lang-mar-28-2022/chinook-development-implementation-decision-making.html

Halpern, O (2022) The future will not be calculated: Neural nets, neoliberalism, and reactionary politics. Critical Inquiry 48 (2): 334-359. doi : https://doi.org/10.1086/717313

Han, B-C (2016) Psychopolitique : le néolibéralisme et les nouvelles techniques de pouvoir. Circé, Strasbourg.

Han, B-C (2022) La fin des choses : bouleversements du monde de la vie. Actes sud, Lonrai.

Heidegger, M (1958) Essais et conférences. Gallimard, Domont.

House of Commons of Canada. 2022. Evidence -CIMM (44-1) – No.3. Evidence - CIMM (44-1) - No. 3 - House of Commons of Canada (ourcommons.ca)

Hui, Y (2016) On the existence of digital objects. University of Minnesota Press, Bolton.

Land, N (2018) Fanged noumena: collected writings 1987-2007. Urbanomic, Padstow.

Latour, B (2012) A Cautious Prometheus? A Few Steps Toward a Philosophy of Design with Special Attention to Peter Sloterdijk. In, Medias Res: Peter Sloterdijk's Spherological Poetics of Being, edited by Willem Schinkel, Liesbeth Noordegraaf-Eelens, Lena Tsipouri and Vanja Stenius, 151-164. https://doi.org/10.1515/9789048514502-009

McKelvey, F & Neves, J (2021) Introduction: optimization and its discontents. Review of Communication 21 (2): 95-112. doi: https://doi.org/10.1080/15358593.2021.1936143

Morozov, Evgeny. 2015. Le mirage numérique: pour une politique du Big Data. Les prairies ordinaires, Paris.

O'Kane, J (2022). Sideways: the city google couldn't buy. Random House Canada, New York.

O'Neil, C (2017) Weapons of math destruction: How big data increases inequality and threatens democracy. Crown.

Plant, S (1996). No plans. In Architects in cyberspace, edited by M. Pearce et N. Spiller, 36-37. Academy press, London.

Roberge, J. , Dandurand G, Morin K, Senneville M (2022) Les narvals et les licornes se cachent-ils pour mourir? De la cybernétique, de la gouvernance et d'Element AI. Réseaux 232-233 : 169-196. doi : DOI 10.3917/res.232.0169

Rappin, B (2018) Algorithme, management, crise : le tryptique cybernétique du gouvernement de l'exception permanente. Quaderni 96 : 103-114. doi : https://doi.org/10.4000/quaderni.1182

Schué, R (2022) Pourquoi des délais aussi longs dans les dossiers d'immigration au Québec? Radio-Canada, April 29. https://ici.radio-canada.ca/nouvelle/1879543/immigration-canada-quebec-delais-residence-permanente

Star, S L (1999) The Ethnography of Infrastructure. American Behavior Scientist 43 (3): 377-391.

Tao, W W (2022) Chinook is AI – IRCC's Own Policy Playbook Tells Us Why. Vancouver Immigration Blog, February 9. Chinook is AI - IRCC's Own Policy Playbook Tells Us Why - Welcome to Vancouver's Immigration Blog (vancouverimmigrationblog.com)

Thompson, E (2021) U.S. technology company Clearview AI violated Canadian privacy law: report. CBC News, February 3. https://www.cbc.ca/news/politics/technology-clearview-facial-recognition-1.5899008

Van Dijck, J (2014) Datafication, Dataism and Dataveillance: Big Data Between Scientific Paradigm and Ideology. Surveillance & Society 12 (2): 197-208. doi: https://doi.org/10.24908/ss.v12i2.4776

Wiener, N (2013) Cybernetics or control and communication in the animal and the machine. Martino publishing, Mansfield.

Willis, A (2021) Big Data company Palantir looks at expansion into Canada's health care sector. The globe and mail, May 25. https://www.theglobeandmail.com/business/article-big-data-company-palantir-looks-at-expansion-into-canadas-health-care/

Zuboff, S (2020) The age of surveillance capitalism: the fight for a human future at the new frontier of power. Public Affairs, new York.