

Artificial Intelligence and Democratic Values

Israel

National AI Strategy

Although Israel is described as one of the world's top three countries in the field of AI research,⁴⁶⁸ at present Israel does not have a national strategy for AI. In January 2018 Prime Minister Benjamin Netanyahu stated, "Artificial intelligence is changing everything, connectivity is important and these are changing the structure of growth."⁴⁶⁹ In July 2018, Netanyahu established an AI Steering Committee with experts from academia, government, business and civil society, led by Professors (Major General retired) Izhak Ben-Israel and Eviatar Matania from the Tel-Aviv University.⁴⁷⁰ Subcommittees were established to explore such topics as robotic and autonomous systems, IOT and Sensors, distributed intelligent systems, quantum computing, academic research centers, cyber-Security and AI, and ethics and regulation. The committees completed discussions in 2019.

In November 2019, Ben-Israel and Matania released a draft report, during AI Week at Tel Aviv University, announcing a focus on the digitization of government services and the agriculture sector. Ben-Israel and Matania also stated that the Steering Committee recommended a coordination agency for AI within the Prime Minister's Office, an Israeli AI cloud, the classification of an Israel city as a "trial city" for smart transportation and autonomous vehicles, and the creation of research centers in universities.

In a public statement, other members of the Steering Committee objected to the summary of the recommendations and the manner of the announcement.⁴⁷¹ They pointed that the Steering Committee was one of 15 subcommittees set up to discuss the needs and best policy concerning the various aspects of promoting AI, such as professional training, ethical use

⁴⁶⁸ ASGARD, *The Global Artificial Intelligence Landscape*, <https://asgard.vc/global-ai/>

⁴⁶⁹ Srishti Deoras, *Israeli PM Benjamin Netanyahu Believes Big Data And Artificial Intelligence Will Reshape The World*, *Analytics India* (Jan. 21, 2018). <https://analyticsindiamag.com/israeli-pm-benjamin-netanyahu-believes-big-data-artificial-intelligence-will-reshape-world/>

⁴⁷⁰ Uri Berkovitz, *Israel's national AI plan unveiled*, *Globes* (Nov. 20, 2019), <https://en.globes.co.il/en/article-israels-national-ai-plan-unveiled-1001307979>

⁴⁷¹ Uri Berkovitz, *Critics slam draft national AI plan*, *Globes* (Nov. 24, 2019), <https://en.globes.co.il/en/article-critics-slam-draft-national-ai-plan-1001308287>.

of the technology, computer infrastructure, and national projects. They recalled that the purpose of the Steering Committee was to coordinate the various work committees' conclusions for submission to government approval. They specifically objected to the emphasis on agriculture and the creation of an organizing agency. Ben-Israel said in response, "The report is a draft, and discussion of it has not ended. We will finish the work we started."

In October 2020, the Institute for National Security Studies (INSS) recommended setting up an agency like the National Cyber Directorate to take charge of integrating artificial intelligence into the defense establishment and maintain Israeli leadership.⁴⁷² The INSS argued that developing a national strategy for artificial intelligence, including its ethical aspects, is critical for Israel's future security.

Ethical and Legal Aspect of AI

The ethical dimensions of AI have received attention from the Israeli Parliament and academics. In June 2018, the Knesset Science and Technology Committee called upon the government to examine various regulatory aspects of AI, including privacy and legal responsibility.⁴⁷³ A few months later, the CEO of the Israel Innovation Authority (IIA) also urged Israel to "close the gap with other countries who already make enormous investments in artificial intelligence infrastructures. In order for Israel to continue to lead in the global technological race, it is necessary to allocate resources and a national artificial intelligence strategy shared by the government, academia, and the industry."⁴⁷⁴

The 2019 IIA Report pointed identified four challenges to Israel's continued leadership AI: (1) a shortage of human capital skilled in the field of AI; (2) limited access to public and government databases for use by new companies; (3) inadequate supercomputing infrastructure for the

⁴⁷² Sagi Cohen, *AI is the next national security frontier, but Israel may be losing its edge*, Haaretz (Oct. 12, 2020), <https://www.inss.org.il/wp-content/uploads/2020/10/AI-is-the-next-national-security-frontier-but-Israel-may-be-losing-its-edge-Liran-Antebi-Haaretz-for-site.pdf>

⁴⁷³ Science and Technology Committee, *First discussion on the government's readiness for the field of artificial intelligence* (June 4, 2018) [GT], <https://m.knesset.gov.il/news/pressreleases/pages/press04.06.18ec.aspx>

⁴⁷⁴ Israel Innovation Authority, *2018-19 Report* (Jan. 14, 2019), <https://innovationisrael.org.il/en/news/israel-innovation-authority-2018-19-report>

Artificial Intelligence and Democratic Values

development of advanced technologies; and (4) slow-changing regulation and a lack of ethical guidelines.

The IIA Report also drew attention to privacy and ethics concerns for AI: “Implementation of smart systems raises ethical concerns that call for clear regulatory definitions. Using large databases poses privacy challenges that mandate information classification by sensitivity levels. Moreover, at times, it is not clear how AI systems make decisions. The responsibility of the manufacturer or the user for the machine’s ‘independent’ activity, in the case of critical error, remains unclear (for example, in an autonomous car accident).”⁴⁷⁵

The Ethics and Regulation subcommittee, chaired by Prof. Karine Nahon, released its report in November 2019.⁴⁷⁶ The committee was “commissioned to suggest guiding principles in the Israeli context that would be taken into account as part of the national plan to turn Israel into an AI leader.” The Committee recommended the following ethical principles for AI:

- 1) Fairness
- 2) Accountability (including *transparency, explainability, ethical and legal responsibility*)
- 3) Protecting human rights (including *bodily integrity, privacy autonomy, civil and political rights*)
- 4) Cyber and information security
- 5) Safety (including *internal safety and external safety*)
- 6) Maintaining a competitive market

The Committee found that “Privacy protection regimes are currently facing a significant gap between the principled importance of consent to collect and use information and a reality where this agreement is based on standard forms that often do not serve the purpose of agreement. This complexity also affects the AI areas, as it is based on the processing of

⁴⁷⁵ Israel Innovation Authority, *Bolstering Artificial Intelligence: What Can Be Done for Israel to Maintain its Leading Position in the Field of AI?* (2019) (section: Changes Needed to Privacy and Ethics Policy in AI), https://innovationisrael.org.il/en/reportchapter/bolstering-artificial-intelligence-0#footnote3_fzh0scp

⁴⁷⁶ Ethics and Regulations Team, *Subcommittee of the Israeli National Intelligent Systems Project on Artificial Intelligence, Ethics and Regulation* (Nov. 19, 2020), <https://ekarine.org/wp-admin/pub/AIEthicsRegulationReport-English.pdf>

The AI Social Contract Index 2020

personal information.” The Committee also recommended that the Privacy Protection Authority would be responsible for AI applications and decision involving personal data. The Committee recommended new authorities and resources for the agency. The Committee noted that “The ability to anonymize personal data, at a reasonable confidence level, is fundamental to the development and promotion of AI.”

Public Participation

According to the press, the Steering Committee on AI, formed by the Prime Minister in 2018, included 15 subcommittees composed of 300 senior people from the government, the Israel Defense Forces, institutions of higher education, civil society, and the technology industry. The recommendations of the AI Steering Committee were slated for submission to the government in January 2020 but that has not occurred.⁴⁷⁷

AI Week

Tel Aviv University's first international AI Week took place in November 2019 and explored the role of artificial intelligence in medicine, computer vision, startups, transportation, human capital development and more.⁴⁷⁸ AI Week for 2020 was postponed. Tel Aviv University has announced AI Week for 2021, February 22-24, as a virtual event.⁴⁷⁹

Research & Development

The Council for Higher Education under the Israeli Ministry of Education, which is responsible for the budgets of higher education institutions in Israel, has defined AI as one of five flagship projects in their five-year plan. The approved four-year AI strategy aims to enhance research excellence in this area and involves the establishment of cross-disciplinary AI centers at all Israeli universities. Another aim is to enhance university collaboration with the major international R&D AI research centres present in Israel (such as Intel, Microsoft and IBM).

⁴⁷⁷ Uri Berkovitz, *Israel's national AI plan unveiled*, *Globes* (Nov. 20, 2019), <https://en.globes.co.il/en/article-israels-national-ai-plan-unveiled-1001307979>

⁴⁷⁸ AAAS EurekAlert!, *First AI Week kicks off at Tel Aviv University* (Nov. 19, 2019), https://www.eurekalert.org/pub_releases/2019-11/afot-faw111919.php

⁴⁷⁹ Tel Aviv University, *AI Week: Feb. 22-24, 2021*, <https://ai-week.com>

Artificial Intelligence and Democratic Values

Privacy and Data Protection

Complementary laws govern data protection in Israel: legal texts and guidelines: (1) the 1992 Basic Law: Human Dignity and Liberty according to which the right for privacy is a constitutional right,⁴⁸⁰ (2) the 1981 Privacy Protection Law (PPL)⁴⁸¹ and subsequent regulations,⁴⁸² such as Israel's 2017 Data Security Regulation,⁴⁸³ and (3) the guidelines of the Israeli Privacy Protection Authority.⁴⁸⁴ Chapter 1 of the PPL covers privacy generally, while Chapter 2 concerns data in storage and sets out various registration, purpose-limitation, transparency and security requirements, as well as individual rights of access and rectification.⁴⁸⁵ Other Chapters address procedural and enforcement matters as well as the disclosure or sharing of information by public bodies and liabilities for the publication of privacy-infringing material in newspapers.

In 2011, the European Commission determined that Israel satisfied the “adequacy requirement” according to the European Directive 95/46, but this status is under examination currently due the changes in the new European Data Protection Regulation (GDPR). The Israeli Ministry of Justice has recently started to promote major update of the PPL, due to the major gap between GDPR and the current Israeli Law.

Israel's Privacy Protection Authority (PPA) is the primary regulator for matters relating to privacy and data security.⁴⁸⁶ The PPA sits within the Israeli Ministry of Justice and is headed by the Registrar of Databases. The

⁴⁸⁰ The Knesset, *Basic Law: Human Dignity and Liberty* (Mar. 17, 1992) http://www.knesset.gov.il/laws/special/eng/basic3_eng.htm

⁴⁸¹ The Knesset, *Protection of Privacy Law 1981* (unofficial English translation), <https://www.gov.il/BlobFolder/legalinfo/legislation/en/ProtectionofPrivacyLaw57411981unofficialtranslatio.pdf>

⁴⁸² IAPP, *Protection of Privacy Regulations (Data Security) 2017* (Unofficial translation), https://iapp.org/media/pdf/resource_center/IS-PROTECTION-OF-PRIVACY-REGULATIONS.pdf

⁴⁸³ Assaf Harel, *5 takeaways from the Israeli Privacy Protection Regulations*, IAPP (Aug. 5, 2019), <https://iapp.org/news/a/five-takeaways-on-the-first-anniversary-of-the-israeli-privacy-protection-regulations/>

⁴⁸⁴ Yoram Shiv and Shira Nager, *Israel - Data Protection Overview*, OneTrust (Oct. 2020), <https://www.dataguidance.com/notes/israel-data-protection-overview>

⁴⁸⁵ The Privacy Protection Authority, *Legislation* (Oct. 3, 2017) (unofficial translation), <https://www.gov.il/en/Departments/legalInfo/legislation>

⁴⁸⁶ The Privacy Protection Authority, https://www.gov.il/en/departments/the_privacy_protection_authority

The AI Social Contract Index 2020

PPA regulates and enforces data protection across all sectors, private and public, according to the provisions of the Privacy Protection Law.

Algorithmic Transparency

There are no provisions relating to automated decision-making in the Privacy Protection Law, but the inspection powers granted to inspectors can be applied to disclose the usage of personal information by the database owner. Similar powers are granted to the credit services regulator at the Bank of Israel, according to the Credit Data Law of 2016.⁴⁸⁷

Medical Data

In 2018, Israel's Prime Minister announced the establishment of a \$300 million initiative to make Israel's large pool of de-identified clinical data available to researchers, entrepreneurs, and medical institutions to develop new treatments and personalized medicine among other goals. "With all records in a common format, AI systems – using machine learning algorithms – will be able to parse the data, seeking correlations in conditions and treatments to discern which treatments are likely to be most effective" said the Director of the Israel Ministry of Health.⁴⁸⁸

The initiative will encompass a number of projects, including the establishment of the "Mosaic" health project, which will create a national information infrastructure for health research in the field of genetics and medical information. Regulators will work together to make sure information can be accessed anonymously, maintaining privacy and securing information and access permissions. Participation in all of the projects will be exclusively on a voluntary basis.⁴⁸⁹ Israel's plans to combine health maintenance organizations' digital health records of most Israelis

⁴⁸⁷ The Knesset, *Credit Data Law, 5776-2016* (Mar. 29, 2016) (unofficial translation), <https://www.boi.org.il/en/CreditRegister/Documents/Credit%20Data%20Law,%205776-2016.pdf>

⁴⁸⁸ Moshe Bar Siman Tov, *How Israel Turned Decades Of Medical Data Into Digital Health Gold*, Forbes (Mar 26, 2019), <https://www.forbes.com/sites/startupnationcentral/2019/03/26/how-israel-turned-decades-of-medical-data-into-digital-health-gold/?sh=1b576d873ee4>

⁴⁸⁹ <https://www.timesofisrael.com/despite-privacy-concerns-israel-to-put-nations-medical-database-online/>

Artificial Intelligence and Democratic Values

into a single system for AI and data analytics to tap were confirmed by the press last September.⁴⁹⁰

Covid-19 Tracking Controversy

Beginning with emergency measures taken in March 2020, the Israeli police used mobile-phone location data and AI techniques to attempt to determine whether those in quarantine were indeed staying in quarantine. The police arrested 203 people based on this phone location tracking. A month after the tracking was authorized, the parliamentary committee in charge of overseeing the practice halted the mobile phone tracking. The Committee argued that the harm done to privacy outweighed the benefits of the tracking.⁴⁹¹

Israel then turned to Shin Bet, the Israeli Security Agency, to monitor the general population and track potential Covid patients and their contacts.⁴⁹² This action was criticized by human rights activists, as well as medical associations.

On April 26, 2020, Israel's Supreme Court banned the intelligence agency from tracing the phone location of those who may be infected with Covid-19, until new laws are passed.⁴⁹³ "The state's choice to use its preventative security service for monitoring those who wish it no harm, without their consent, raises great difficulties and a suitable alternative... must be found," the court said.⁴⁹⁴ The Association for Civil Rights in Israel, one of the groups which brought the court challenge, welcomed the decision, saying: "Israel must not be the only democracy operating its secret

⁴⁹⁰ Dov Lieber, *Israel Prepares to Unleash AI on Health Care*, Wall Street Journal (Sept. 15, 2019), <https://www.wsj.com/articles/israel-prepares-to-unleash-ai-on-health-care-11568599261>

⁴⁹¹ Knesset News, *Foreign Affairs and Defense Committee suspends bill allowing police to surveil civilian phones to enforce quarantine orders* (Apr. 23, 2020), <https://main.knesset.gov.il/EN/News/PressReleases/Pages/press23420b.aspx>

⁴⁹² Jonathan Lis, *Israel Extends Security Service Tracking of Coronavirus Cases for Three More Weeks* (May 27, 2020), <https://www.haaretz.com/israel-news/.premium-israel-extends-security-service-tracking-of-coronavirus-cases-for-three-more-weeks-1.8875700>

⁴⁹³ BBC News, *Coronavirus: Israeli court bans lawless contact tracing* (Apr. 27, 2020), <https://www.bbc.com/news/technology-52439145>

⁴⁹⁴ Cardoza Law School, Versa, *Ben Meir v. Prime Minister, HCJ 2109/20*, (Apr. 26, 2020), <https://versa.cardozo.yu.edu/opinions/ben-meir-v-prime-minister-0>

The AI Social Contract Index 2020

security service to monitor its citizens, even in the fight against the coronavirus."

However, the decision simply ended the program under the emergency powers authorized in March. In July, Israel's parliament voted to allow the country's Internal Security agency to track the contact relations of Israeli cellphone users for the rest of the year amid a resurgence in new cases.⁴⁹⁵ Human rights organizations renewed their objections.⁴⁹⁶

In a September 2020 opinion, the national Privacy Protection Authority also objected to the use of the Israeli Internal Security Service location tracking tool.⁴⁹⁷ The PPA said that the measure cannot be justified, and that use would adversely impact the public's trust in public authorities. The PPA also questioned the effectiveness of the location tracking tool.

Social Ranking

Following a proposal to use scoring technologies for Israelis who may be infected with COVID-19, the PPA also published a review on the use of technologies for the social ranking of citizens to achieve social and governmental goals, and the impact of this on the right to privacy.⁴⁹⁸ The April 2020 Review indicated that social ranking systems have increased in an era of Big Data and are present, in Israel, in forms such as the credit data rating system or a potential future AI-based system aimed to rate an individual's likelihood of contracting COVID-19. Specifically, the Review outlined that such a system, which would process location, medical, and personal data, would constitute a serious violation of the privacy of citizens

⁴⁹⁵ Reuters, *Israel approves cellphone tracking of COVID-19 carriers for rest of year* (July 20, 2020), <https://www.reuters.com/article/us-health-coronavirus-israel-surveillanc/israel-approves-cellphone-tracking-of-covid-19-carriers-for-rest-of-year-idUSKCN24L2PJ>

⁴⁹⁶ Privacy International, *Israel's coronavirus surveillance is an example for others - of what not to do* (updated July 21, 2020), <https://privacyinternational.org/long-read/3747/israels-coronavirus-surveillance-example-others-what-not-do>

⁴⁹⁷ Pearl Cohen, *Israel: Privacy Protection Authority Objects to Shabak-Run Location Tracking for Coronavirus Epidemiological Investigations* (Sept. 1, 2020) (includes link to opinion in Hebrew), <https://www.pearlcohen.com/israel-privacy-protection-authority-objects-to-shabak-run-location-tracking-for-coronavirus-epidemiological-investigations/>

⁴⁹⁸ OneTrust, *Israel: PPA publishes background review on the use of social ranking systems* (Apr. 24, 2020) (includes links to report and summary, in Hebrew), https://www.gov.il/he/departments/publications/reports/social_ranking

Artificial Intelligence and Democratic Values

and should be avoided as far as possible and, where it cannot be avoided, it must be compliant with data protection law.

Facial recognition

Facial Recognition in Israel is implemented in border control and Israel has a biometric database of face photos and fingerprints of citizens and residents, as well as foreigners accessing Israel. A biometric database was enacted in law in 2009.⁴⁹⁹ The law provides the basis for the Israeli national ID-Card. The database includes biometric face-photos, and voluntary supplied fingerprints. According to the biometric database law, the information can be used for severe crime enforcement, and for state security tasks. In May 2020 the Israeli State Comptroller reported that the data of about 4.5 million Israeli drivers' licenses, including facial pictures, are not sufficiently protected from misuse or outside hacking.⁵⁰⁰

Still, Israel's military has invested tens of millions of dollars to upgrade West Bank checkpoints with AnyVision facial recognition technology to verify Palestinian workers' identities and ease their entry into Israel. The new system, which began rolling out late 2018, drew criticism about the role the controversial technology plays in Israel's military control over Palestinians.⁵⁰¹

Microsoft, which was part of a group that had invested \$74 million in AnyVision, hired a team of lawyers to audit the Israeli firm and determine whether AnyVision's technology applications complied with Microsoft's ethical principles against using facial recognition for mass surveillance. In March 2020, Microsoft said it was pulling investments from AnyVision although the outcomes of the audit did not substantiate claims that the startup's technology was used unethically.⁵⁰²

499 Wikipedia, *Biometric Database Law*,
https://en.wikipedia.org/wiki/Biometric_Database_Law

⁵⁰⁰ The Jerusalem Post, *4.5 million citizens' details insufficiently protected, comptroller says* (May 4, 2020), <https://www.jpost.com/Israel-News/45-million-citizens-details-insufficiently-protected-comptroller-says-626847>

⁵⁰¹ Daniel Estrin, *Face Recognition Lets Palestinians Cross Israeli Checkposts Fast, But Raises Concerns* (Aug. 22, 2019), <https://www.npr.org/2019/08/22/752765606/face-recognition-lets-palestinians-cross-israeli-checkposts-fast-but-raises-conc>

⁵⁰² Matt O'Brien, *Microsoft divests from Israeli facial-recognition startup* (March 28, 2020), <https://www.timesofisrael.com/microsoft-divests-from-israeli-facial-recognition-startup/>

The AI Social Contract Index 2020

OECD AI Principles

Israel has endorsed the OECD AI Principles. Israel has not joined the Global Partnership on AI. Also, the OECD did not identify any examples of implementation of the AI Principles in the summary 2020 report.

Human Rights

Israel is a signatory to many international human rights treaties and conventions and is considered a free country, receiving a score of 76/100 for political rights and civil liberties.⁵⁰³ Freedom House reports that “Israel is a multiparty democracy with strong and independent institutions that guarantee political rights and civil liberties for most of the population. Although the judiciary is active in protecting minority rights, the political leadership and many in society have discriminated against Arab and other minorities, resulting in systemic disparities in areas including political representation, criminal justice, education, and economic opportunity.”

Autonomous Weapons

Israel is developing lethal autonomous weapons, including both the Iron Dome defensive system⁵⁰⁴ and the Harop suicide drone.⁵⁰⁵ The Israeli mission to the GGE on LAWS of the Convention on Certain Conventional Weapons clarified Israel’s position in August 2019.⁵⁰⁶ In August 2020, Israel expressed further views on the Eleven Guiding Principles Adopted by the Group of Government Expert concerning lethal autonomous weapons

⁵⁰³ Freedom House, *Freedom in the World 2020 – Israel* (2020), <https://freedomhouse.org/country/israel/freedom-world/2020>

⁵⁰⁴ Yaniv Kubovich, *Israel Deploys Iron Dome Amid Islamic Jihad Leader's Assassination Anniversary*, *Haaretz* (Nov. 11, 2020), <https://www.haaretz.com/israel-news/israel-iron-dome-gaza-islamic-jihad-leader-s-assassination-hamas-1.9303330>

⁵⁰⁵ The Week India, *Why Indian Army is eyeing a mini 'suicide drone' from Israel* (July 14, 2020), <https://www.theweek.in/news/india/2020/07/14/why-indian-army-is-eyeing-a-mini-suicide-drone-from-israel.html>

⁵⁰⁶ Group of Governmental Experts of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, *Draft Report of the 2019 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems* (Aug. 21, 2019) (Annex IV) [https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/5497DF9B01E5D9CFC125845E00308E44/\\$file/CCW_GGE.1_2019_CRP.1_Rev2.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/5497DF9B01E5D9CFC125845E00308E44/$file/CCW_GGE.1_2019_CRP.1_Rev2.pdf)

Artificial Intelligence and Democratic Values

system. Israel's view is that "the law of armed conflict, or international humanitarian law (IHL), applies to the potential development and use of emerging technologies in the area of LAWS; that human judgment will always be an integral part of any process regarding emerging technologies in the area of LAWS, and will be applied during their life-cycle; and that humans will always be responsible for the use of LAWS." Moreover, in Israel's view, "besides the potential risks that may be associated with LAWS, there are also operational advantages to the use of LAWS as well as clear advantages from the humanitarian perspective."⁵⁰⁷

Evaluation

The current circumstances of Israel's AI policies and practices are confusing and complex. Although Israel is a leader in AI research and development, efforts to develop a coherent national AI strategy have stalled. There is good work underway on AI ethics and a well-established legal system for data protection, but the general population tracking for sensitive medical condition by the internal security agency with AI technique is of concern. Also troubling is the use of facial recognition technology without clear legal basis and the reluctance to support limits on lethal autonomous weapons. Israel has endorsed the OECD AI principles, and works in cooperation with other countries on AI policy, but has not yet expressed support for the Universal Guidelines for AI or the Social Contract for the Age of AI.

⁵⁰⁷ Permanent Mission of Israel to the UN, *Israel Considerations on the Operationalization of the Eleven Guiding Principles Adopted by the Group of Governmental Experts (Aug. 31, 2020)*, <https://documents.unoda.org/wp-content/uploads/2020/09/20200831-Israel.pdf>