BIOMETRICS AND COUNTER-TERRORISM
Case study of Israel/Palestine

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privacyinternational.org

Author

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ABOUT THIS REPORT

In 2017, the UN Security Council adopted Resolution 2396 requiring member states to develop and implement systems to collect and share biometric data for the purposes of tackling terrorism. For human rights and civil society groups, this embrace of biometric technology is worrisome. The “War on Terror” has already led to a widespread erosion of civil liberties, a tendency that biometric technologies risk only accelerating. Through an in-depth focus on measures implemented in Israel/Palestine, this report highlights the negative human rights implications and ethical concerns surrounding the use of biometrics for counter-terrorism, focusing on the dangers of unlawful surveillance, limitations to the right to movement, and the exacerbation of racial and religious inequality via automated decision making.

GLOSSARY

Basel System:	An automated biometric identification system developed by the Israeli Ministry of Defense, which regulates movement of Palestinian workers in and out of the occupied Palestinian territory
Mabat 2000:	A visual surveillance system in the occupied Old City of Jerusalem
Maoz System:	A biometric registration system for foreign workers in Israel
occupied Palestinian territory:	Palestinian territory occupied by Israel since 1967, namely East Jerusalem, the Gaza Strip and the West Bank

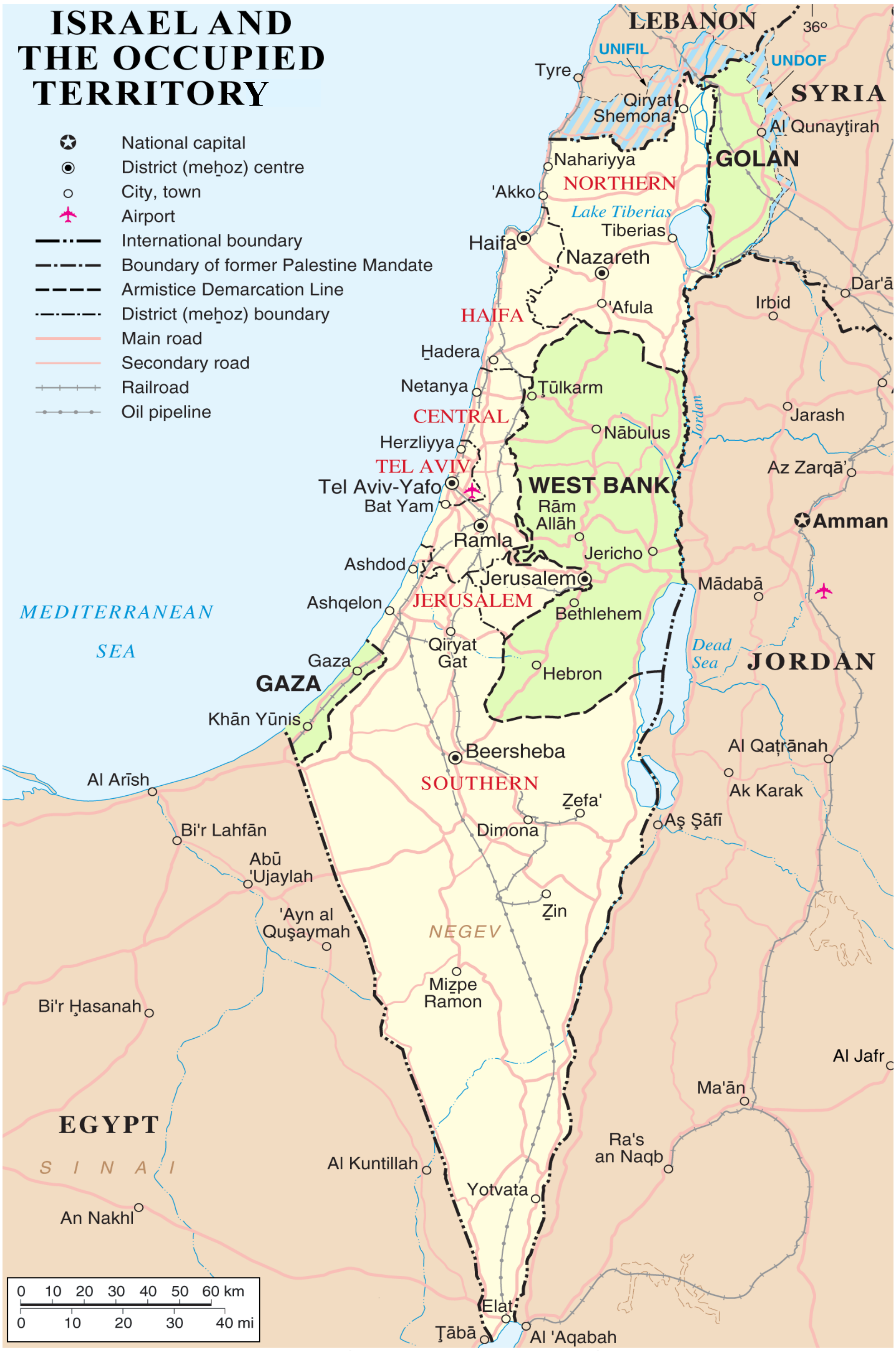

Figure 1: Map of Israel and the occupied Palestinian territory
Source: United Nations

ISRAEL AND BIOMETRIC OCCUPATION

In 1967, in the wake of the Six-Day War, the state of Israel captured and occupied East Jerusalem, the Gaza Strip and the West Bank, territories over which it continues to maintain effective control despite delegating limited power to Palestinian authorities. Israel, considered an occupying power under international law, has a long record of human rights violations across the occupied Palestinian territory.[1]

Over the last few decades, the Israeli government has implemented an array of infrastructural technologies to facilitate a regime of occupation and land annexation beyond the Green Line (the 1949 armistice border). These range from checkpoints to a segregated network of roads and railways to a separation barrier that, by snaking into territory well into the West Bank, effectively serves to annex territory.[2] In recent years, these movement restrictions and policing have become increasingly digitized. This turn towards higher-tech forms of surveillance has included a growing reliance on biometrics.

[1] Israel is widely considered to be an occupying power under international law. A 2016 Security Council resolution determined that Israel's settlement activity in the West Bank constituted "a flagrant violation under international law" with "no legal validity". United Nations Security Council, Resolution 2334, 23 December 2016, 2, https://www.un.org/webcast/pdfs/SRES2334-2016.pdf.

[2] Eyal Weizman, *Hollow Land: Israel's Architecture of Occupation* (Verso Books, 2017).

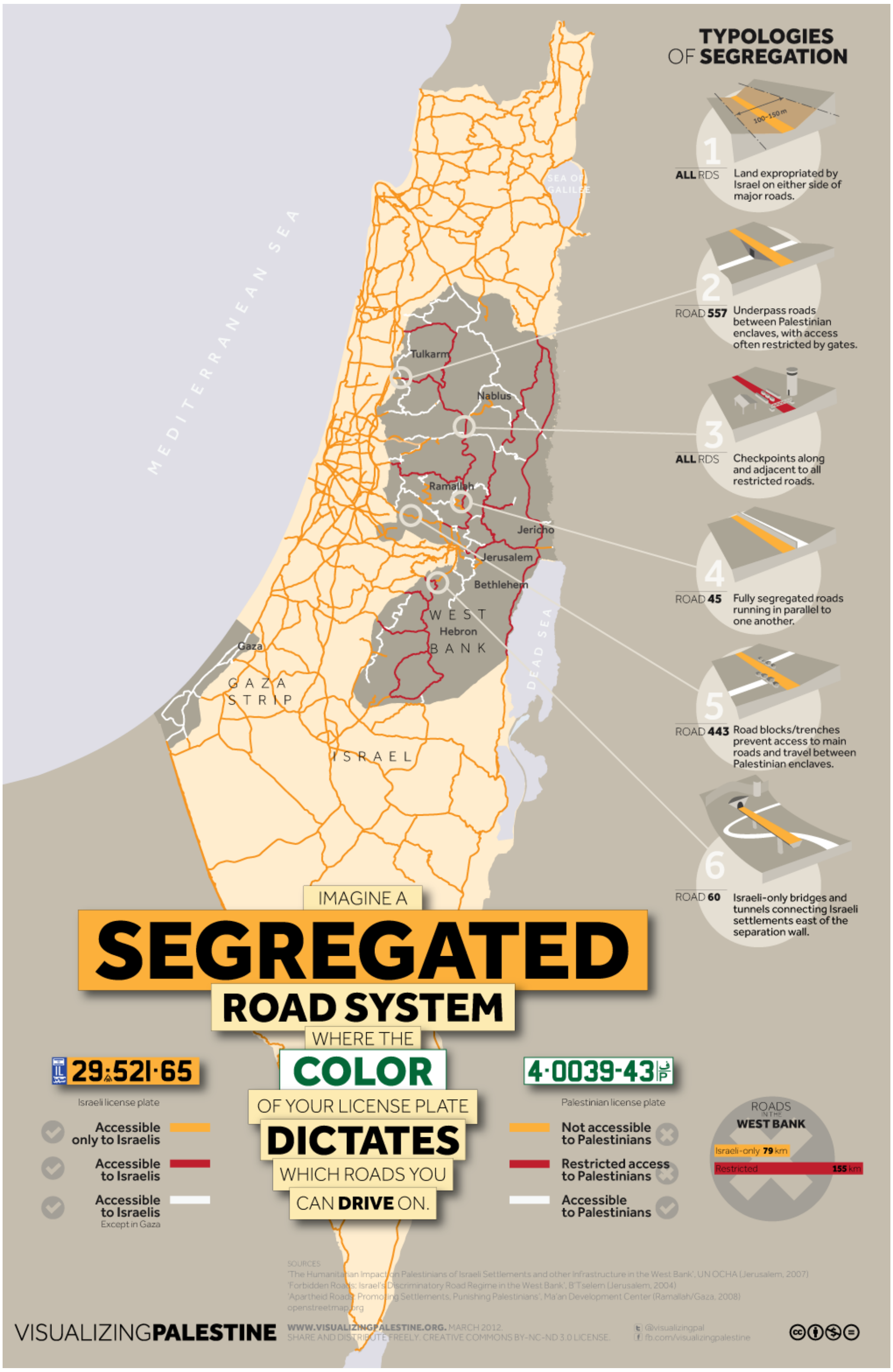
TYPOLOGIES OF SEGREGATION
100–150 m
1
ALL RDS
Land expropriated by Israel on either side of major roads.
2
ROAD 557
Underpass roads between Palestinian enclaves, with access often restricted by gates.
3
ALL RDS
Checkpoints along and adjacent to all restricted roads.
4
ROAD 45
Fully segregated roads running in parallel to one another.
5
ROAD 443
Road blocks/trenches prevent access to main roads and travel between Palestinian enclaves.
6
ROAD 60
Israeli-only bridges and tunnels connecting Israeli settlements east of the separation wall.
MEDITERRANEAN SEA
SEA OF GALILEE
DEAD SEA
Tulkarm
Nablus
Ramallah
Jericho
Jerusalem
Bethlehem
WEST BANK
Hebron
Gaza
GAZA STRIP
ISRAEL
IMAGINE A
SEGREGATED
ROAD SYSTEM
WHERE THE
COLOR
OF YOUR LICENSE PLATE
DICTATES
WHICH ROADS YOU
CAN DRIVE ON.
29:521-65
Israeli license plate
Accessible only to Israelis
Accessible to Israelis
Accessible to Israelis
Except in Gaza
4-0039-43
Palestinian license plate
Not accessible to Palestinians
Restricted access to Palestinians
Accessible to Palestinians
ROADS IN THE WEST BANK
Israeli-only 79 km
Restricted 155 km
SOURCES
'The Humanitarian Impact on Palestinians of Israeli Settlements and other Infrastructure in the West Bank', UN OCHA (Jerusalem, 2007)
'Forbidden Roads: Israel's Discriminatory Road Regime in the West Bank', B'Tselem (Jerusalem, 2004)
'Apartheid Roads: Promoting Settlements, Punishing Palestinians', Ma'an Development Center (Ramallah/Gaza, 2008)
openstreetmap.org
VISUALIZINGPALESTINE
WWW.VISUALIZINGPALESTINE.ORG. MARCH 2012.
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Figure 2: Israel's System of Segregated Roads in the occupied Palestinian territory
Source: Visualizing Palestine

The Israeli government has made significant strides in the use of biometric technologies for the purposes of routine identification and authentication, border crossing, and perhaps most alarmingly, surveillance of public spaces and predictive risk assessment. Its tactics show how biometrics deployed in the name of counter-terrorism can normalize conditions of segregation and military occupation. National and international corporations, in close coordination with the Israeli state, have also tested out biometrics on occupied populations and foreign workers before extending such technologies to Israeli citizens and exporting them internationally. As sociologist Elia Zureik notes, just as technologies "developed in the colonies make their way back to the metropole" so are "methods adopted to monitor marginal and minority groups… eventually extended to the majority".[3] The case of Israel/Palestine[4] speaks to these broader dangers of technological function creep.

BIOMETRIC ID

This "creep" from the margins to the center is evidenced in the evolution of Israel's ID system. The Israeli government has a long history of using identity documents to legally and spatially fragment the Palestinian population. As media scholar Helga Tawil-Souri notes, the Israeli state has issued different IDs to Palestinians in East Jerusalem, the West Bank, and the Gaza Strip since the 1967 Six-Day War. These cards are "a widespread low-tech surveillance mechanism and a principal means for discriminating (positively and negatively) subjects' privileges and basic rights."[5] More recently, in 2017, the Knesset (Israeli

[3] Elia Zureik, "Strategies of Surveillance: The Israeli Gaze", *Jerusalem Quarterly* 66 (2016): 26.

[4] As it is difficult to neatly distinguish between the borders of the Israeli state and the borders of any future Palestinian state, this report uses the term Israel/Palestine to refer to the region as a whole. The boundaries between Israel and Palestine as defined under international law are contested and the Israeli government effectively controls all the territory that once comprised Mandatory Palestine.

[5] Helga Tawil-Souri, "Colored Identity: The Politics and Materiality of ID Cards in Palestine/Israel", *Social Text* 29, 107, no. 2 (June 2011): 69-70. See also: Visualizing Palestine Infographic, "Identity Crisis: The Israeli ID System", 7 June 2014, https://visualizingpalestine.org/visuals/identity-crisis-the-israeli-id-system.

Parliament) passed a long-debated and controversial law mandating all Israeli citizens and residents carry a biometric ID and register in a national biometric database of facial images and fingerprints.[6] Yet long before such proposals were rolled out for Israeli citizens, the military had trialed an earlier biometric identification and authentication system in the occupied Palestinian territory. Originally deployed in the Gaza strip in 1999 (just prior to the Second Intifada) and eventually extended to the West Bank, the Basel system was designed for Palestinian workers from the occupied territory who had to travel to Israel.[7]

Pairing biometric work permits with biometric verification at checkpoints, the Basel system became the basis for an analogous scheme for foreign workers residing in Israel, known as the Maoz system.[8] Established in 2004 and made operational the following year, the Maoz database of foreign workers was intended to "enable the deportation of illegal workers and prevent their return under a false identity".[9] Launched in the absence of any kind of legal regulation, publication of formal procedures, or pilot program, the database has been roundly condemned by migrant rights groups.[10]

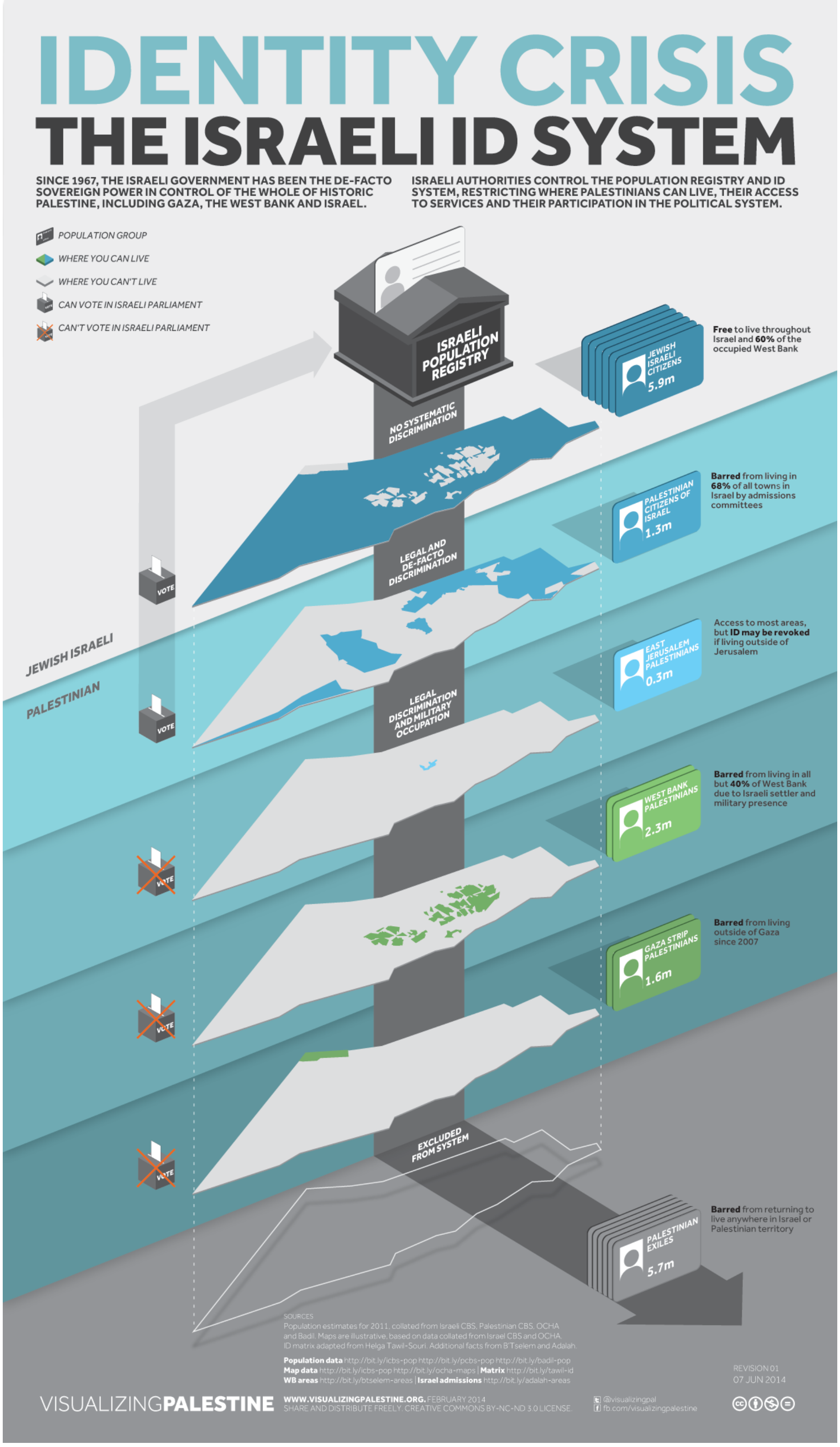
[6] "Knesset Approves Making Biometric ID Cards Mandatory", *The Times of Israel*, 28 February 2017, https://www.timesofisrael.com/knesset-approves-making-biometric-id-cards-mandatory/. On the Biometric Database Law (Inclusion of Biometric Means of Identification and Biometric Identification Data in Identity Documents and in an Information Database Law), see https://www.gov.il/en/Departments/publications/reports/bio_documents_info.

[7] Michelle Spektor, "Imagining the Biometric Future: Debates Over National Biometric Identification in Israel", *Science as Culture* 29, no. 1 (2 January 2020): 100–126. See also Julie Peteet, *Space and Mobility in Palestine* (Bloomington: Indiana University Press, 2017), 83-4.

[8] An Israeli subsidiary of EDS (now owned by Hewlett Packard (HP)) won the contract to develop the Basel and Maoz systems. For more on HP's involvement with biometric systems in Israel/Palestine, see Who Profits and The Coalition of Women For Peace, *Technologies of Control: The Case of Hewlett Packard* (December 2011), https://whoprofits.org/wp-content/uploads/2018/06/old/hp_report-_final_for_web.pdf.

[9] Rony Shani, "Latest in policing: biometric identification 'for efficient expulsion of foreign workers'", *Yedioth Ahronoth*, 13 Nov 2005, translated from Hebrew, https://www.ynet.co.il/articles/0,7340,L-3168570,00.html.

[10] "Give Me Your Fingerprint or I'll Break Your Arm", *The Migrant*, Sept 2014, http://the-migrant.co.il/en/node/11.



IDENTITY CRISIS
THE ISRAELI ID SYSTEM

SINCE 1967, THE ISRAELI GOVERNMENT HAS BEEN THE DE-FACTO SOVEREIGN POWER IN CONTROL OF THE WHOLE OF HISTORIC PALESTINE, INCLUDING GAZA, THE WEST BANK AND ISRAEL.

ISRAELI AUTHORITIES CONTROL THE POPULATION REGISTRY AND ID SYSTEM, RESTRICTING WHERE PALESTINIANS CAN LIVE, THEIR ACCESS TO SERVICES AND THEIR PARTICIPATION IN THE POLITICAL SYSTEM.

POPULATION GROUP
WHERE YOU CAN LIVE
WHERE YOU CAN'T LIVE
CAN VOTE IN ISRAELI PARLIAMENT
CAN'T VOTE IN ISRAELI PARLIAMENT
ISRAELI POPULATION REGISTRY
NO SYSTEMATIC DISCRIMINATION
LEGAL AND DE-FACTO DISCRIMINATION
LEGAL DISCRIMINATION AND MILITARY OCCUPATION
EXCLUDED FROM SYSTEM
JEWISH ISRAELI
PALESTINIAN
VOTE
VOTE
VOTE
VOTE
VOTE
JEWISH ISRAELI CITIZENS 5.9m
PALESTINIAN CITIZENS OF ISRAEL 1.3m
EAST JERUSALEM PALESTINIANS 0.3m
WEST BANK PALESTINIANS 2.3m
GAZA STRIP PALESTINIANS 1.6m
PALESTINIAN EXILES 5.7m

Free to live throughout Israel and **60%** of the occupied West Bank

Barred from living in **68%** of all towns in Israel by admissions committees

Access to most areas, but **ID may be revoked** if living outside of Jerusalem

Barred from living in all but **40%** of West Bank due to Israeli settler and military presence

Barred from living outside of Gaza since 2007

Barred from returning to live anywhere in Israel or Palestinian territory

SOURCES
Population estimates for 2011, collated from Israeli CBS, Palestinian CBS, OCHA and Badil. Maps are illustrative, based on data collated from Israel CBS and OCHA. ID matrix adapted from Helga Tawil-Souri. Additional facts from B'Tselem and Adalah.

Population data http://bit.ly/icbs-pop http://bit.ly/pcbs-pop http://bit.ly/badil-pop
Map data http://bit.ly/icbs-pop http://bit.ly/ocha-maps | **Matrix** http://bit.ly/tawil-id
WB areas http://bit.ly/btselem-areas | **Israel admissions** http://bit.ly/adalah-areas

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Figure 3: Identity Crisis: The Israeli ID System
Source: Visualizing Palestine

From the Basel system to the Maoz system to the more recent Biometric Database Law, one can trace the movement of biometrics from Palestinian workers in the occupied territory to foreign workers in Israel and, now, to Israeli citizens and residents writ large. As biometric identity systems become increasingly widespread and obligatory so do concerns that the Israeli government is aggregating a massive database of sensitive personal information of citizens and non-citizens alike.

The Palestinian National Authority (PA) recently rolled out biometric passports to meet international standards and "ease Palestinians' movement" through airports.[11] Digital rights activist Nadim Nashif questioned whether the PA could prevent its biometric database from being accessed by Israeli security agencies.[12] The Israeli government not only retains control over many aspects of governance in the West Bank but has also co-opted the PA into its security apparatus.[13] In fact, the current system of occupation calls into question the very idea of a "national" Palestinian biometric database. Under the best of circumstances, centralized biometric databases pose privacy and surveillance risks.[14] Under conditions of occupation characterized by highly asymmetric power relations, such risks are greatly compounded.

[11] Amira Hass, "Palestinian Authority to Launch Biometric Database Next Year", *Haaretz*, 10 July 2013, https://www.haaretz.com/.premium-pa-to-launch-biometric-database-in-2014-1.5293782.

[12] Nadim Nashif (digital rights activist), interview with author, 7 April 2020.

[13] Visualizing Palestine Infographic, "The Palestinian Authority Guide To Keeping Yourself Occupied", January 2016, https://visualizingpalestine.org/visuals/palestinian-authority-occupied#&gid=1&pid=1; and Tariq Dana, Sabrien Amrov, and Alaa Tartir, "Focus on: Palestinian-Israel Security Coordination", Al-Shabaka, The Palestinian Policy Network, 21 March 2017, https://al-shabaka.org/focuses/focus-palestinian-israeli-security-coordination/.

[14] PI, "Have a Biometric ID System Coming Your Way? Key Questions to Ask and the Arguments to Make", 11 July 2019, https://privacyinternational.org/long-read/3067/have-biometric-id-system-coming-your-way-key-questions-ask-and-arguments-make.

AUTOMATING CHECKPOINTS

In more recent years, the Israeli government has been also incorporating facial recognition technologies into its existing identification, checkpoint, and CCTV/ IP video surveillance systems. Within the occupied territory, the most evident use of facial recognition technology is at recently upgraded fixed checkpoints in the West Bank, which control the movement of people in and out of the West Bank. This shift towards automation is part and parcel of Israel's broader strategy to humanize and "civilian-ize" the existing checkpoint system.[15]

This software for the cameras at the access control systems were reportedly provided by AnyVision Interactive Technologies, an Israeli startup that until recently enjoyed venture capital funding from Microsoft.[16] Prior to AnyVision's enhancements, Israeli checkpoints were notorious for endless delays, caged entryways, and long queues of frustrated Palestinian workers waiting to be screened by soldiers.[17] At newly upgraded checkpoints, Palestinian workers with permissions to work in Israel, who have been granted biometric IDs, simply approach an optical turnstile, scan their digital IDs, and stare into a camera. Within seconds, AnyVision's facial recognition software is able to authenticate their identity. If verified, electronic panels open, allowing them passage.[18] Though such technologies have reduced friction and significantly shortened waiting times for Palestinians, as Jessica Montell of the Israeli human rights group

[15] Who Profits and The Coalition of Women For Peace, *Technologies of Control* (Dec 2011), 15, https://whoprofits.org/wp-content/uploads/2018/06/old/hp_report-_final_for_web.pdf.

[16] Jeffrey Dastin, "Microsoft to Divest AnyVision Stake, End Face Recognition Investing", *Reuters*, Technology News, 27 March 2020, https://www.reuters.com/article/us-microsoft-anyvision/microsoft-to-divest-anyvision-stake-end-face-recognition-investing-idUSKBN21E3BA.

[17] Stefanie Dekker, "West Bank Checkpoints: 'Endless' Delays, Every Day", *Al Jazeera*, 18 January 2019, https://www.aljazeera.com/news/2019/01/west-bank-checkpoints-endless-delays-day-190118174334086.html.

[18] Daniel Estrin, "Face Recognition Lets Palestinians Cross Israeli Checkposts Fast, But Raises Concerns", *NPR*, 22 August 2019, https://www.npr.org/2019/08/22/752765606/face-recognition-lets-palestinians-cross-israeli-checkposts-fast-but-raises-conc.

HaMoked argues, they also help "maintain what should be an unsustainable situation of military occupation."[19]

In spite of such technological innovations, checkpoints remain highly securitized bottlenecks that divide occupied Palestinian territory (where Palestinians live alongside but segregated from Israeli settlers) from Israel, enabling Israel to systematically displace Palestinians from East Jerusalem by restricting their movement, and simultaneously allow hundreds of thousands of settlers to move freely on a daily basis. Israel has deemed that the vast majority of Palestinians are a threat, and does not allow them to enter Israel or parts of the occupied Palestinian territory, primarily Jerusalem. In addition, some Palestinians are on a list that bars them from moving across these checkpoints.[20] Professor and lawyer Yael Berda "estimates that upward of 250,000 people are on this list, and that number is only growing."[21] Increasingly, such technologies are being used to screen Palestinians, limit their mobility into settlements and Israel proper, and maintain Israel's fragmented patchwork of segregated enclaves.

FACIAL RECOGNITION AND VIDEO SURVEILLANCE

Far less transparent (and arguably far more troubling) is the use of facial recognition for ambient surveillance of public spaces. For many years, Israel has maintained an extensive network of closed-circuit television (CCTV), internet protocol (IP) cameras, and license plate recognition (LPR) cameras throughout

[19] *Ibid.*

[20] The Israeli Information Center for Human Rights in the Occupied Territories, Restrictions on Movement, 2017, https://www.btselem.org/freedom_of_movement.

[21] Hannah Brown, "An Artificial Intelligence Company Backed by Microsoft is Helping Israel Surveil Palestinians", *Vox*, Updated 31 October 2019, https://www.vox.com/2019/10/31/20937638/israel-surveillance-network-covers-palestinian-territories.

the occupied Palestinian territory. This already-existing network of video cameras has facilitated the transition to more dynamic, responsive, automated forms of visual surveillance that utilize Artificial Intelligence (AI) and facial recognition. As the American Civil Liberties Union (ACLU) warns: "Today's capture-and-store video systems are starting to be augmented with active monitoring technology" that "allow computers not just to record but also to understand the objects and actions that a camera is capturing."[22] Some of the most cutting-edge innovations in video analytics have been developed and tested out in Israel/Palestine.

Jerusalem, in particular, has long been an epicenter for multinational corporations like Cisco, AnyVision, and Mer Group, in partnership with the Israeli government, to develop and experiment with visual surveillance technologies.[23] In the predominately Palestinian-inhabited Old City of Jerusalem, occupied by Israel since 1967, Israel use a surveillance security system in place since 2000. Known as Mabat 2000 (its meaning both the Hebrew word for "gaze" and an acronym for "technological & surveillance center"), this program has "entailed saturating the streets, corners and alleyways" with 400 cameras, approximately one "per every 100 persons in the Old City's four quarters."[24] Legal expert Usama Halabi noted in 2010 that the Jerusalem police had not developed any kind of code of practice specifically relevant to Mabat 2000, raising myriad questions about the protections (if any) afforded to Palestinian residents under its

[22] Jay Stanley and the ACLU, *The Dawn of Robot Surveillance: AI, Video Analytics, and Privacy* (American Civil Liberties Union, June 2019), 3, https://www.aclu.org/sites/default/files/field_document/061819-robot_surveillance.pdf.

[23] Alex Kane, "How Israel Became a Hub for Surveillance Technology", *The Intercept*, 17 October 2016; and Who Profits, *Company Feature: Cisco's Involvement in the Israeli Occupation* (September 2019), https://whoprofits.org/wp-content/uploads/2019/08/CISCOfinal-web.pdf.

[24] Who Profits, *Flash Report: "Big Brother" in Jerusalem's Old City: Israel's Militarized Visual Surveillance System in Occupied East Jerusalem* (November 2018), 9, https://whoprofits.org/flash-report/big-brother-in-jerusalems-old-city. According to Who Profits, the Israeli conglomerate C. Mer Group installed and maintains Mabat 2000, which uses hardware from a number of companies, including VideoTec, a private Italian company; Dahua Technology, a public Chinese company; and Evron Systems Ltd., a private Israeli company. The watchdog group has also documented the use of Sony cameras at Bab Al Amud (the Damascus Gate). In recent years, the Israeli police has expanded the Mabat system beyond the Old City to include other neighbourhoods in Jerusalem.

surveillance.[25] In 2017, the Israeli police upgraded this visual surveillance system to include facial recognition software.[26]

In the West Bank, where Palestinians do not have Israeli citizenship rights, facial recognition technologies are often deployed in particularly covert ways. Last year, AnyVision came under fire after investigative reports from *Haaretz*'s *The Marker* and *NBC News* revealed that it was powering a secretive surveillance program in the West Bank, an allegation that the company publicly denies.[27] According to its own marketing materials, AnyVision products use AI and facial and body recognition technology to identify and track suspects in real-time, predict suspicious behavior, and do analysis post-event. Whereas Mer Group (which maintains Mabat 2000) has added facial recognition technology to a preexisting network of state-controlled surveillance cameras, AnyVision boasts the ability to remotely and covertly install its software on any camera, even those that are relatively low-tech.[28] If marketing materials are to be believed, "Better Tomorrow", the software system purportedly used in the West Bank, can trace a person-of-interest across multiple cameras; find repeated appearances of an individual; detect suspects and suspicious objects caught on camera; rapidly perform historic video analysis for forensic purposes; and extract, analyze and store face images of all individuals who pass within a camera's view.[29]

[25] Usama Halabi, "Legal Analysis and Critique of Some Surveillance Methods Used by Israel", in *Surveillance and Control in Israel/Palestine: Population, Territory and Power,* eds. Elia Zureik, David Lyon, and Yasmeen Abu-Laban (Routledge, 2013), 210.

[26] Who Profits, *Flash Report: "Big Brother" in Jerusalem's Old City*, 11-12, https://whoprofits.org/flash-report/big-brother-in-jerusalems-old-city.

[27] Amitai Ziv, "This Israeli Face-Recognition Startup is Secretly Tracking Palestinians", *Haaretz*, 15 July 2019, https://www.haaretz.com/israel-news/business/.premium-this-israeli-face-recognition-startup-is-secretly-tracking-palestinians-1.7500359; Olivia Solon, "Why did Microsoft Fund an Israeli Firm that Surveils West Bank Palestinians", *NBC News*, 28 Oct 2019, https://www.nbcnews.com/news/all/why-did-microsoft-fund-israeli-firm-surveils-west-bank-palestinians-n1072116; Amitai Ziv, "Exclusive: The Mysterious Israeli Startup Working Secretively in the Occupied Territories Surveilling Palestinians", translated from Hebrew, *The Marker*, 14 July 2019. https://www.nbcnews.com/news/all/why-did-microsoft-fund-israeli-firm-surveils-west-bank-palestinians-n1072116.

[28] Ziv, "This Israeli Face-Recognition Startup is Secretly Tracking Palestinians", https://www.haaretz.com/israel-news/business/.premium-this-israeli-face-recognition-startup-is-secretly-tracking-palestinians-1.7500359; and Nadim Nashif, interview with author, 7 April 2020.

[29] Solon, "Why did Microsoft Fund an Israeli Firm that Surveils West Bank Palestinians", https://www.nbcnews.com/news/all/why-did-microsoft-fund-israeli-firm-surveils-west-bank-palestinians-

According to reports, it is nicknamed “Google Ayosh”, where "Ayosh" is a Hebrew acronym that describes the occupied Palestinian territory and "Google" denotes the technology’s ability to search for people’s faces with the same ease as a keyword search on Google. (Google is not actually involved in this project.)[30] AnyVision’s software also performs heat mapping.[31] A recent development in AI video surveillance, heat mapping uses “algorithms to detect unusual movements and crowd formations” as well as traffic patterns. This technique has particularly worrying implications for Palestinians’ right to protest and assemble.[32]

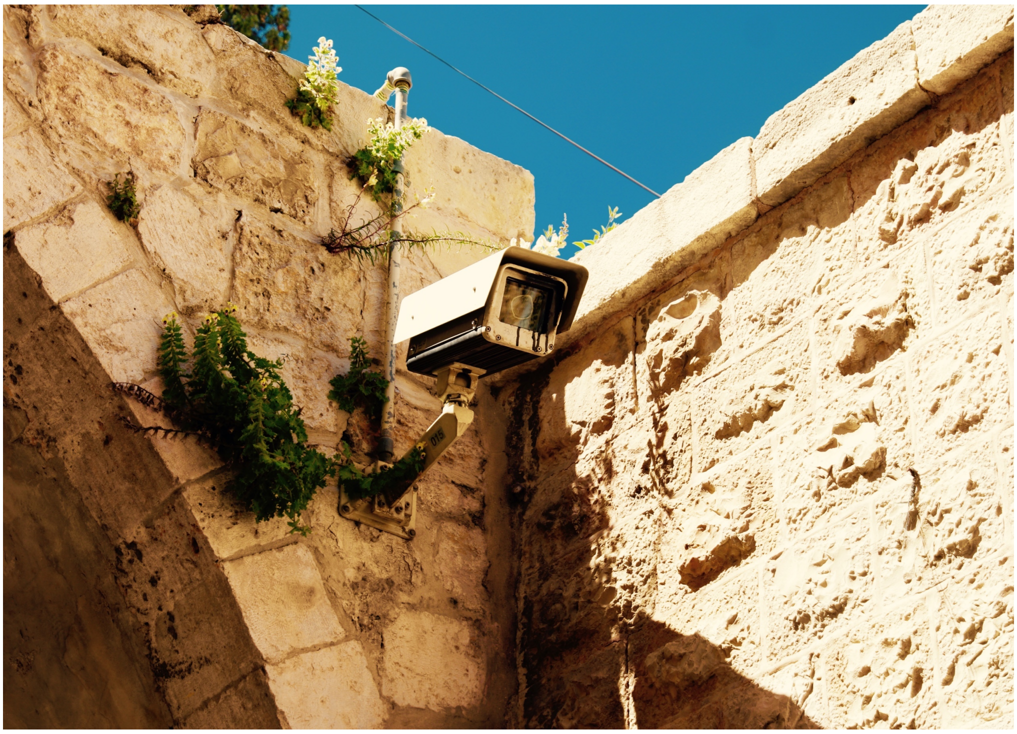

Figure 4: Surveillance Camera in Jerusalem’s Old City
Photograph by David Hamann

https://www.nbcnews.com/news/all/why-did-microsoft-fund-israeli-firm-surveils-west-bank-palestinians-n1072116.

[31] “8 AI-based Video Analytics Platforms Advance Security Implementation”, Asmag, 29 July 2019, https://www.asmag.com/showpost/28633.aspx. AnyVision also uses heatmapping for commercial purposes: NVIDIA, “AnyVision—Store Analytics and AI-Generated Heatmaps”, 11 November 2019, YouTube video, https://www.youtube.com/watch?list=UUHuiy8bXnmK5nisYHUd1J5g&v=I7-Doxe9Myk.

[32] Steven Feldstein, *The Global Expansion of AI Surveillance Working Paper* (Washington DC: Carnegie Endowment for International Peace, Sept 2019), 11, https://carnegieendowment.org/2019/09/17/global-expansion-of-ai-surveillance-pub-79847.

Shrouded in secrecy, the extent and function of video surveillance in the occupied territory remains an open question. Faced with public outcry and allegations that it was breaching its own ethical guidelines, Microsoft announced in 2020 that it was divesting from AnyVision after an external audit.[33] In a brief public statement regarding its audit of the company, Microsoft claimed that: "The available evidence demonstrated that AnyVision's technology has not previously and does not currently power a mass surveillance program in the West Bank that has been alleged in media reports."[34] The ambiguity surrounding the term "mass surveillance", however, leaves significant scope for interpretation. Indications that Palestinians are being routinely surveilled in their daily lives abound. In October, *Ma'an* reported that Palestinian teenagers outside Ramallah had discovered a hidden surveillance system and video camera purportedly made by AnyVision camouflaged in a false rock in a cemetery.[35]

[33] Palestinian Boycott, Divestment and Sanctions (BDS) National Committee (BNC), "BNC Statement: Boycott AnyVision: Israel's "Field-Tested" Facial Recognition Surveillance Company", BDS Movement, 30 August 2019, https://bdsmovement.net/news/boycott-anyvision-israels-field-tested-facial-recognition-surveillance-company; and "Press Release: Microsoft Drops AnyVision-#DROPANYVISION Campaign Celebrates", Jewish Voice for Peace, 28 March 2020, https://jewishvoiceforpeace.org/dropanyvision-win/. See also #DROPANYVISION Campaign, www.DropAnyVision.org.

[34] "Joint Statement by Microsoft and AnyVision—AnyVision Audit", Microsoft Venture Fund, 27 March 2020, https://m12.vc/news/joint-statement-by-microsoft-anyvision-anyvision-audit/.

[35] "Palestinian Teens Find IDF Surveillance Camera, Microsoft Faces Backlash", *Jerusalem Post*, 9 October 2009, https://www.jpost.com/Arab-Israeli-Conflict/Palestinian-teens-find-IDF-surveillance-camera-Microsoft-faces-backlash-603820.

ASSESSING FACIAL RECOGNITION IN ISRAEL/PALESTINE

In a recent *New York Times* article, Bruce Schneier argued that banning facial recognition (while arguably welcome) "misconstrues the nature of the surveillance society", which relies on a wide spectrum of interconnected technologies.[36] Though facial recognition may evoke dystopian images of "Big Brother", fixation on a single technology (particularly one that attracts considerable press attention) can easily overshadow the much more mundane yet often far more invasive technologies deployed by governments. As Israel's recent efforts to combat COVID-19 made evident, the government has long possessed the capacity to monitor and track the population through conventional cell phone data.[37] Moreover, there are limits to the efficacy and scalability of facial recognition technologies.[38] Algorithms are only as good as the data; prospective analysis of rare events (like "lone wolf" attacks) are often swamped by false positives.[39] Following Schneier, it is imperative to view facial recognition as one of many technologies within Israel's as well other governments' wider surveillance regime.

Still, Israel's facial recognition technology warrants our attention for several reasons. According to independent researcher Rohan Tolbert, the growing use of such technologies enables the automation of many aspects of the occupation.[40]

[36] Bruce Schneier, "We're Banning Facial Recognition. We're Missing the Point." *The New York Times*, 20 January 2020, https://www.nytimes.com/2020/01/20/opinion/facial-recognition-ban-privacy.html?smid=nytcore-ios-share.

[37] "Coronavirus: Following Adalah's Petition, Israeli Supreme Court Issues Interim Injunction Limiting Security Service's Tracking of Cellphones", Adalah, 19 March 2020, https://www.adalah.org/en/content/view/9924; and Richard Silverstein, "Israel is Militarizing and Monetizing the COVID-19 Epidemic", *Jacobin*, 16 April 2020, https://jacobinmag.com/2020/4/israel-military-surveillance-coronavirus-covid-netanyahu.

[38] PI, "Facial Recognition", https://privacyinternational.org/learn/facial-recognition.

[39] Xianhang Zhang (tech analyst), interview with author, 1 April 2020.

[40] Rohan Tolbert (independent researcher), interview with author, 2 April 2020.

Such automation—which reduces interactions between Israeli soldiers and Palestinians—also argued to help normalizing and streamlining conditions of indefinite military occupation. As journalist Amira Hass notes, "the lack of human contact doesn't merely speed up the process, but also makes it easier psychologically."[41] AnyVision has sought to project a humane image of Israel's upgraded checkpoints, which it claims removes unnecessary hurdles and eases life for Palestinian travelers. Comparing its systems to routine airport immigration controls, the company argues that "facial recognition drastically decreases wait times at border crossings" and "provide[s] an unbiased safeguard at the border to detect and deter persons who have committed unlawful activities."[42]

Such technologies serve to blur the distinction between a military checkpoint and an international border. It also makes the fragmentation of Palestinian territory appear technically feasible. Activists have raised alarms about facial recognition's potential to further policies of segregation and demographic engineering. Tolbert cited the risks posed to Palestinians who possess East Jerusalem residency IDs.[43] Aided by facial recognition and other biometric technology, the Israeli government can theoretically monitor the movement of East Jerusalem residents and revoke permits from anyone who does not actively maintain a "center of life" in Jerusalem.[44]

Particularly under conditions of military occupation, facial recognition technologies hold acute risks to civil rights. As journalist Hannah Brown notes: "Palestinians living in the West Bank don't hold Israeli citizenship and, therefore,

[41] Amira Hass, "Renovated Checkpoints Mean Palestinians No Longer Feel Like Cows Being Led to the Slaughter", *Haaretz*, 25 May 2019, https://www.haaretz.com/israel-news/.premium-renovated-checkpoints-mean-palestinians-no-longer-feel-like-cow-led-to-slaughter-1.7283924.

[42] "Ethical and Responsible AI at AnyVision" AnyVision, 6 August 2019, https://www.anyvision.co/2019/08/06/ethical-and-responsible-ai-at-anyvision.

[43] Rohan Tolbert, interview with author, 2 April 2020.

[44] "Israel: Jerusalem Palestinians Stripped of Status: Discriminatory Residency Revocations", Human Rights Watch, 8 August 2017, https://www.hrw.org/news/2017/08/08/israel-jerusalem-palestinians-stripped-status.

are not protected by Israeli privacy laws."[45] Coupled with predictive policing based on social media posts, such technologies have the potential to criminalize routine forms of expression and daily life.[46] False positives may also be of less concern to a state able to round up and indefinitely detain people, including minors, without trial.[47]

Moreover, centralized systems of surveillance, whose function is selectively broadcast to the public, encourage internalized acts of self-censorship and self-regulation. The highly publicized 2018 trial of Israeli citizen Dareen Tatour, who posted a poem online entitled "Resist, my people resist them", drew attention to the Israeli government's practice of monitoring and effectuating arrests based on social media posts.[48] According to a recent study by 7amleh – The Arab Center for the Advancement of Social Media – Palestinian youth self-censor on social media due to a "general atmosphere of repression".[49] By the same token, facial recognition may have chilling effects on populations cognizant that they are being monitored, but unaware of how such opaque technologies might be used. Raising questions about proportionality, Usama Halabi asks: "Is it desirable and acceptable to keep thousands of innocent

[45] Brown, "An Artificial Intelligence Company Backed by Microsoft is Helping Israel Surveil Palestinians", https://www.vox.com/2019/10/31/20937638/israel-surveillance-network-covers-palestinian-territories. See also Benjamin G. Waters, "An international right to privacy: Israeli intelligence collection in the Occupied Palestinian Territories," *Georgetown Journal of International Law* 50, no. 2 (2019): 573-597.

[46] "Israel Claims 200 Attacks Predicted, Prevented with Data Tech", *CBS News*, 12 June 2018, https://www.cbsnews.com/news/israel-data-algorithms-predict-terrorism-palestinians-privacy-civil-liberties.

[47] Amnesty International, *Starved of Justice: Palestinians Detained Without Trial by Israel* (London: Amnesty International, 2012), https://www.amnestyusa.org/reports/starved-of-justice-palestinians-detained-without-trial-by-israel.

[48] "Dareen Tatour Sentenced to Five Months in Prison over Poem", *Al Jazeera*, 31 July 2018, https://www.aljazeera.com/news/2018/07/dareen-tatour-sentenced-months-prison-poem-180731084215893.html.

[49] 7amleh – The Arab Center for the Advancement of Social Media, *Silenced Networks: The Chilling Effect Among Palestinian Youth in Social Media* (Oct 2019), 5, https://7amleh.org/wp-content/uploads/2019/10/7amleh_Net_0919_ENGLISH1.pdf.

people under strict daily surveillance because a few crimes might be spotted by some of these cameras?"[50]

SURVEILLANCE LABORATORIES

Dubbing itself the "startup nation", Israel has actively sought to project an image of itself as the next Silicon Valley, focusing on cybersecurity, defense, and artificial intelligence.[51] In 2019, Israel saw the sale of its surveillance systems almost double.[52] It has also used the occupied territory as testing grounds for new surveillance and military technology that can then be showcased to potential investors and clients.[53] For example, drones produced by two Israeli arms manufacturers, which were developed for use in the Gaza strip, part of the occupied Palestinian territory, are now being adopted by Frontex in the Mediterranean.[54] Conditions of occupation make it possible for the Israeli government and multinational corporations to test out invasive biometric

[50] Usama Halabi, "Legal analysis and critique of some surveillance methods used by Israel", in *Surveillance and Control in Israel/Palestine*, eds. Elia Zureik, David Lyon, Yasmeen Abu-Laban (Routledge, 2010), 199-218.

[51] Omer Keilaf, "An Oasis of Mobility Innovation: The Origins of Israel's Silicon Wadi", Forbes (3 July 2020), https://www.forbes.com/sites/forbestechcouncil/2020/07/03/an-oasis-of-mobility-innovation-the-origins-of-israels-silicon-wadi/?sh=228d4f8023a0; and Rihard Behar, "Inside Israel's Secret Startup Machine", *Forbes*, 11 May 2016, https://www.forbes.com/sites/richardbehar/2016/05/11/inside-israels-secret-startup-machine/#72e9d7611a51.

[52] "Israel reports drop in arms sales, but exports of spy tech nearly double", *Middle East Eye*, 22 June 2020, https://www.middleeasteye.net/news/israel-arms-sales-fall-exports-spy-tech-nearly-double.

[53] Helga Tawil-Souri, "Digital Occupation in Gaza's High-Tech Enclosure", in *State Power 2.0: Authoritarian Entrenchment and Political Engagement Worldwide*, ed. Muzammil M. Hussain (Abingdon: Routledge, 2016), 57-68; Coalition of Women for Peace and Hamushim, *A Lab and a Showroom: The Israeli Military Industries and the Oppression of the Great March of Return in Gaza* (June 2018), https://enhamushim.files.wordpress.com/2018/06/report-with-covers1.pdf; and Al-Haq, *The Surveillance Industry and Human Rights: Israel's Marketing of the Occupation of Palestine*, Submission to the UN Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression (13 Feb 2019), http://www.alhaq.org/cached_uploads/download/alhaq_files/images/stories/PDF/Submission_to_the_UN_Special_Rapporteur_on_the_Promotion_and_Protection_of_the_Right_to_Freedom_of_Opinion_and_Expression.pdf.

[54] Daniel Howden, Apostolis Fotiadis, and Antony Loewenstein, "Once migrants on Mediterranean were saved by naval patrols. Now they have to watch as drones fly over", *The Guardian*, 4 August 2019, https://www.theguardian.com/world/2019/aug/04/drones-replace-patrol-ships-mediterranean-fears-more-migrant-deaths-eu.

technologies on populations who have little legal recourse. AnyVision, for instance, has marketed itself as a "field tested" company.[55] Its facial recognition and surveillance software have been used throughout the US and by multinational corporations like Telefónica, public entities such as the city of Nice, and security companies like G4S.[56]

The UN Security Council has required member states to develop and implement biometric systems for counter-terrorism in compliance with international human rights law, international refugee law, and international humanitarian law.[57] Yet the ambiguity surrounding the UN's requirements coupled with inadequate national and international legal frameworks open up enormous scope for abuse.[58] There are few provisions in place when countries infringe on the basic human right to privacy or use biometric technologies in ways that violate international law.[59] Israel is a paradigmatic case of such dangers.

[55] A former AnyVision employee told NBC News: "It was heavily communicated to us [by AnyVision's leadership] that the Israeli government was the proof of concept for everything we were doing globally. The technology was field-tested in one of the world's most demanding security environments and we were now rolling it out to the rest of the market", (Solon, "Why did Microsoft Fund an Israeli Firm that Surveils West Bank Palestinians", https://www.nbcnews.com/news/all/why-did-microsoft-fund-israeli-firm-surveils-west-bank-palestinians-n1072116). The AnyVision website refers to their "20+ years of academic research and field experience" (https://www.anyvision.co/).

[56] Paresh Dave and Jeffrey Dastin, "EXCLUSIVE: Why a U.S. hospital and oil company turned to facial recognition", *Reuters,* 20 April 2021, https://www.reuters.com/world/middle-east/exclusive-why-us-hospital-oil-company-turned-facial-recognition-2021-04-20/; "AnyVision and Telefónica announce integration partnership", Security News Desk, 10 December 2018, https://securitynewsdesk.com/anyvision-telefonica-announce-integration-partnership; Laura Kayali, "How facial recognition is taking over a French city", 26 September 2019, https://www.politico.eu/article/how-facial-recognition-is-taking-over-a-french-riviera-city; and AnyVision, "Excited to announce our partnership with G4S." Facebook, 9 April 2019, https://www.facebook.com/AnyvisionBT/photos/excited-to-announce-our-partnership-with-g4s-looking-forward-to-working-together/403406813793629/.

[57] UN Security Council Resolution 2396 (2017), https://undocs.org/S/RES/2396(2017).

[58] Krisztina Huszti-Orbán and Fionnuala Ní Aoláin, *The Use of Biometric Data to Identify Terrorists: Best Practice or Risky Business?* Report prepared under the aegis of the Mandate of the UN Special Rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism (University of Minnesota Human Rights Center, 2020), https://www.law.umn.edu/sites/law.umn.edu/files/2020/07/21/hrc-biometrics-report-july2020.pdf.

[59] PI, *Briefing on the Responsible Use and Sharing of Biometric Data* (2020) https://privacyinternational.org/advocacy/4064/briefing-responsible-use-and-sharing-biometric-data-counter-terrorism.

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