‘The Gospel’: how Israel uses AI to select bombing targets in Gaza

Concerns over data-driven ‘factory’ that significantly increases the number of targets for strikes in the Palestinian territory

Israel-Hamas war – live updates

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Israel’s military has made no secret of the intensity of its bombardment of the Gaza Strip. In the early days of the offensive, the head of its air force spoke of relentless, “around the clock” airstrikes. His forces, he said, were only striking military targets, but he added: “We are not being surgical.”

There has, however, been relatively little attention paid to the methods used by the Israel Defense Forces (IDF) to select targets in Gaza, and to the role artificial intelligence has played in their bombing campaign.

As Israel resumes its offensive after a seven-day ceasefire, there are mounting concerns about the IDF’s targeting approach in a war against Hamas that, according to the health ministry in Hamas-run Gaza, has so far killed more than 15,000 people in the territory.

The IDF has long burnished its reputation for technical prowess and has previously made bold but unverifiable claims about harnessing new technology. After the 11-day war in Gaza in May 2021, officials said Israel had fought its “first AI war” using machine learning and advanced computing.

The latest Israel-Hamas war has provided an unprecedented opportunity for the IDF to use such tools in a much wider theatre of operations and, in particular, to deploy an AI target-creation platform called “the Gospel”, which has significantly accelerated a lethal production line of targets that officials have compared to a “factory”.

The Guardian can reveal new details about the Gospel and its central role in Israel’s war in Gaza, using interviews with intelligence sources and little-noticed statements made by the IDF and retired officials.

This article also draws on testimonies published by the Israeli-Palestinian publication +972 Magazine and the Hebrew-language outlet Local Call, which have interviewed several current and former sources in Israel’s intelligence community who have knowledge of the Gospel platform.

Their comments offer a glimpse inside a secretive, AI-facilitated military intelligence unit that is playing a significant role in Israel’s response to the Hamas massacre in southern Israel on 7 October.

The slowly emerging picture of how Israel’s military is harnessing AI comes against a backdrop of growing concerns about the risks posed to civilians as advanced militaries around the world expand the use of complex and opaque automated systems on the battlefield.

“Other states are going to be watching and learning,” said a former White House security official familiar with the US military’s use of autonomous systems.

The Israel-Hamas war, they said, would be an “important moment if the IDF is using AI in a significant way to make targeting choices with life-and-death consequences”.

Israeli soldiers during ground operations in the Gaza Strip. Photograph: IDF

From 50 targets a year to 100 a day

In early November, the IDF said “more than 12,000” targets in Gaza had been identified by its target administration division.

Describing the unit's targeting process, an official said: "We work without compromise in defining who and what the enemy is. The operatives of Hamas are not immune – no matter where they hide."

The activities of the division, formed in 2019 in the IDF's intelligence directorate, are classified.

However a short statement on the IDF website claimed it was using an AI-based system called Habsora (the Gospel, in English) in the war against Hamas to "produce targets at a fast pace".

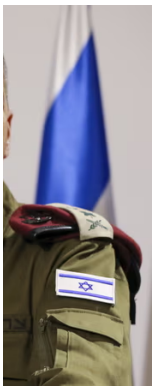
The IDF said that "through the rapid and automatic extraction of intelligence", the Gospel produced targeting recommendations for its researchers "with the goal of a complete match between the recommendation of the machine and the identification carried out by a person".

Multiple sources familiar with the IDF's targeting processes confirmed the existence of the Gospel to +972/Local Call, saying it had been used to produce automated recommendations for attacking targets, such as the private homes of individuals suspected of being Hamas or Islamic Jihad operatives.

In recent years, the target division has helped the IDF build a database of what sources said was between 30,000 and 40,000 suspected militants. Systems such as the Gospel, they said, had played a critical role in building lists of individuals authorised to be assassinated.

Aviv Kochavi, who served as the head of the IDF until January, has said the target division is "powered by AI capabilities" and includes hundreds of officers and soldiers.

In an interview published before the war, he said it was "a machine that produces vast amounts of data more effectively than any human, and translates it into targets for attack".



According to Kochavi, "once this machine was activated" in Israel's 11-day war with Hamas in May 2021 it generated 100 targets a day. "To put that into perspective, in the past we would produce 50 targets in Gaza per year. Now, this machine produces 100 targets a single day, with 50% of them being attacked."

Precisely what forms of data are ingested into the Gospel is not known. But experts said AI-based decision support systems for targeting would typically analyse large sets of information from a range of sources, such as drone footage, intercepted communications, surveillance data and information drawn from monitoring the movements and behaviour patterns of individuals and large groups.

The target division was created to address a chronic problem for the IDF: in earlier operations in Gaza, the air force repeatedly ran out of targets to strike. Since senior Hamas officials disappeared into tunnels at the start of any new offensive, sources said, systems such as the Gospel allowed the IDF to locate and attack a much larger pool of more junior operatives.

One official, who worked on targeting decisions in previous Gaza operations, said the IDF had not previously targeted the homes of junior Hamas members for bombings. They said they believed that had changed for the present conflict, with the houses of suspected Hamas operatives now targeted regardless of rank.

"That is a lot of houses," the official told +972/Local Call. "Hamas members who don't really mean anything live in homes across Gaza. So they mark the home and bomb the house and kill everyone there."

Targets given 'score' for likely civilian death toll

In the IDF's brief statement about its target division, a senior official said the unit "produces precise attacks on infrastructure associated with Hamas while inflicting great damage to the enemy and minimal harm to non-combatants".

The precision of strikes recommended by the "AI target bank" has been emphasised in multiple reports in Israeli media. The Yedioth Ahronoth daily newspaper reported that the unit "makes sure as far as possible there will be no harm to non-involved civilians".

A former senior Israeli military source told the Guardian that operatives use a "very accurate" measurement of the rate of civilians evacuating a building shortly before a strike. "We use an algorithm to evaluate how many civilians are remaining. It gives us a green, yellow, red, like a traffic signal."

However, experts in AI and armed conflict who spoke to the Guardian said they were sceptical of assertions that AI-based systems reduced civilian harm by encouraging more accurate targeting.

A lawyer who advises governments on AI and compliance with humanitarian law said there was "little empirical evidence" to support such claims. Others pointed to the visible impact of the bombardment.

“Look at the physical landscape of Gaza,” said Richard Moyes, a researcher who heads Article 36, a group that campaigns to reduce harm from weapons.

“We’re seeing the widespread flattening of an urban area with heavy explosive weapons, so to claim there’s precision and narrowness of force being exerted is not borne out by the facts.”

Satellite images of the northern city of Beit Hanoun in Gaza before (10 October) and after (21 October) damage caused by the war. Photograph: Maxar Technologies/Reuters

According to figures released by the IDF in November, during the first 35 days of the war Israel attacked 15,000 targets in Gaza, a figure that is considerably higher than previous military operations in the densely populated coastal territory. By comparison, in the 2014 war, which lasted 51 days, the IDF struck between 5,000 and 6,000 targets.

Multiple sources told the Guardian and +972/Local Call that when a strike was authorised on the private homes of individuals identified as Hamas or Islamic Jihad operatives, target researchers knew in advance the number of civilians expected to be killed.

Each target, they said, had a file containing a collateral damage score that stipulated how many civilians were likely to be killed in a strike.

One source who worked until 2021 on planning strikes for the IDF said “the decision to strike is taken by the on-duty unit commander”, some of whom were “more trigger happy than others”.

The source said there had been occasions when “there was doubt about a target” and “we killed what I thought was a disproportionate amount of civilians”.

An Israeli military spokesperson said: “In response to Hamas’ barbaric attacks, the IDF operates to dismantle Hamas military and administrative capabilities. In stark contrast to Hamas’ intentional attacks on Israeli men, women and children, the IDF follows international law and takes feasible precautions to mitigate civilian harm.”

‘Mass assassination factory’

Sources familiar with how AI-based systems have been integrated into the IDF’s operations said such tools had significantly sped up the target creation process.

“We prepare the targets automatically and work according to a checklist,” a source who previously worked in the target division told +972/Local Call. “It really is like a factory. We work quickly and there is no time to delve deep into the target. The view is that we are judged according to how many targets we manage to generate.”

A separate source told the publication the Gospel had allowed the IDF to run a “mass assassination factory” in which the “emphasis is on quantity and not on quality”. A human eye, they said, “will go over the targets before each attack, but it need not spend a lot of time on them”.

For some experts who research AI and international humanitarian law, an acceleration of this kind raises a number of concerns.

Dr Marta Bo, a researcher at the Stockholm International Peace Research Institute, said that even when “humans are in the loop” there is a risk they develop “automation bias” and “over-rely on systems which come to have too much influence over complex human decisions”.

Moyes, of Article 36, said that when relying on tools such as the Gospel, a commander “is handed a list of targets a computer has generated” and they “don’t necessarily know how the list has been created or have the ability to adequately interrogate and question the targeting recommendations”.

“There is a danger,” he added, “that as humans come to rely on these systems they become cogs in a mechanised process and lose the ability to consider the risk of civilian harm in a meaningful way.”