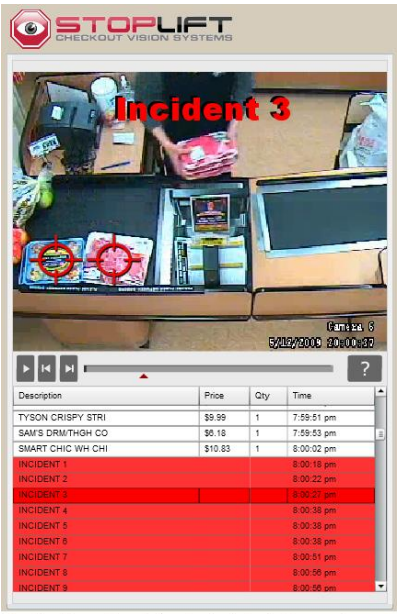


Cashier "sweathearts" a stack of steaks by passing them around the scanner while StopLift Scan-It-All software highlights next two items to be sweathearted.

AI on Video & POS uncovers 50X Revenue Multiplier – NRF Big Show Booth 1462

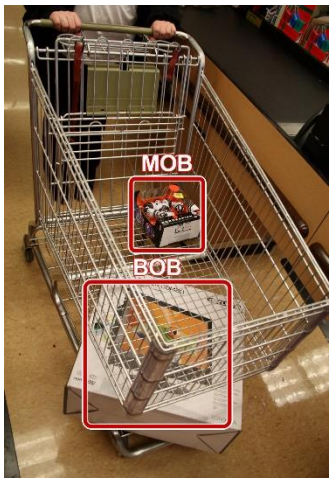
The real goal of Artificial Intelligence (AI) in retailing is to uncover hidden gems of revenue multiplication in the data that retailers already possess. The largest treasure trove of such data is a retailer's video footage, and the second largest source is its POS data. As it turns out, marrying the two data sources has uncovered a potential 20X to 50X revenue multiplier.

When AI analyzes both the POS data and its corresponding security video, it becomes apparent that not all merchandise that goes through the checkout gets rung up. And with retailers' razor thin net profit margins of 2% to 5%, every 1 scan-avoided item requires selling 20 to 50 more of the same item to make up for the loss. Therefore, every $1 of prevented scan-avoidance equates to a revenue increase of $20 to $50 – quite a significant multiplier.

Based on statistics from the National Retail Federation (NRF), retailers lose an estimated $14 billion annually in scan avoidance.*

Artificial Intelligence technology, patented by StopLift Checkout Vision Systems, analyzes and compares security video and POS data to determine what occurs during each transaction at the retail or supermarket checkout and immediately distinguish between legitimate and fraudulent behavior. Its Scan-It-All™ artificial intelligence system has already confirmed more than 2.5 million scan avoidance incidents at both manned and self-checkouts around the world. *Visit StopLift's booth #`462 at the NRF Big Show.*

As soon as a scan avoidance incident occurs, StopLift (which constantly monitors 100% of the security video) flags the transaction as suspicious. It quickly reports the incident, identifying the cashier or customer and the date and time of the theft. This includes incidents due to either mistakes or deliberate actions by the cashier or the customer at self-checkout, including items left in the shopping cart or reusable bag.



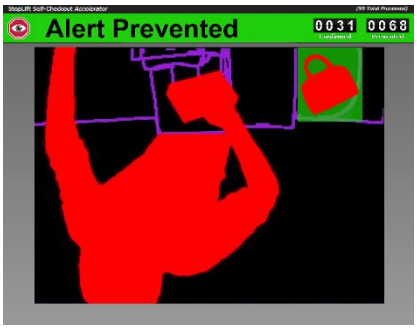
Above, Middle of the Basket (MOB) & Bottom of the Basket (BOB) scan-avoidance.

Incidents often include "sweethearting", when cashiers pretend to scan merchandise but deliberately bypass the scanner, thus not charging the customer for the merchandise. The customer is often a friend, family member or fellow employee working in tandem with the cashier.

Malay Kundu, Founder and CEO of StopLift, headquartered in Cambridge, MA, explains that by flagging the unscanned items at the checkout, his AI technology enables supermarkets and retailers to identify the perpetrators of scan avoidance and serves as a deterrent to future incidents.

By installing StopLift's AI at the checkout, retailers can prevent front-end shrink, boost their profits significantly, and effectively create a 20X to 50X revenue multiplier.

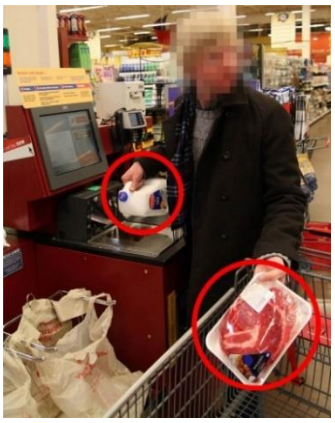
Kundu's technology also eliminates costly, time-consuming, human review of video, drastically reduces and deters fraud at the checkout, and significantly improves profitability. Rather than take a one-size-fits-all approach, Scan-It-All™ develops targeted applications to address the specific needs of retailers from different sectors including general merchandise, grocery, and specialty retail.



Kundu explained: "Retailers and supermarkets have tried to track sweethearting or scan avoidance through data mining, but how do you do data mining when there's no data?"

Retail chains and supermarkets can also receive realtime reporting on self-checkout theft and other scan avoidance, prevent false alerts and interventions, alert the attendant before the customer leaves the store, and improve customer service at the self-checkout with StopLift's new Self-Checkout Accelerator.

"We've found that self-checkout theft and other scan avoidance has been up to five times higher than manned checkout," Kundu said. "Retailers always suspected that self-checkouts would be highly prone to scan-avoidance, and our technology has certainly found this to be the case.



"Using the incidents detected from their own stores, retailers are now able to train staff on the signals indicating when customers are either having problems using the self-checkout or are exhibiting suspicious behavior," he said.

At the manned checkout, Kundu's Scan-It-All™ AI identifies dishonest associates on the basis of video evidence the first time they conduct a fraudulent transaction, rather than months or even years down the road, significantly reducing inventory shrinkage, deterring future theft, and boosting profitability. Likewise, dishonest customers are identified at the self-checkout.

"The system never sleeps. It lets me sleep," said Piggly Wiggly owner and StopLift client Keith Holley of Alabama.

Scan-It-All works with existing off-the-shelf overhead cameras. No special camera equipment needs to be purchased or installed, and no changes have to be made to the checkout.

Kundu became involved in loss prevention through a retail inventory shrinkage study he led at Harvard Business School named "Project StopLift". Previously, Kundu led the development of real-time facial recognition systems for identifying terrorists in airports for Facia Reco Associates (licensor to facial recognition leader Viisage), and he was responsible for delivering the first such system ever to the Army Research Laboratory.

See real scan avoidance incidents -- and a realtime incident counter at www.StopLift.com.

*****_The U.S. National Retail Federation states that retail shrink was $44 billion in 2016 and about $14 billion of that is due to scan-avoidance. Supermarkets, with their lower profit margins, are particularly vulnerable to scan-avoidance._