

WestLotto

How can lottery tickets migrate to the cloud?





Real projects



Real companies



Real technologies

DEAR READER,

Is artificial intelligence (AI) going to turn the world upside down? When will it be able to match humans on every level? Can AI be creative? These are the types of question covered by AI stories in the mainstream media. The big issues, the extraordinary scenarios. Experts are constantly trying to outdo one another with promises or warnings, depending on which side they are on. It makes for exciting reading. But what's exciting is actually taking place elsewhere. Real progress is easily lost in all the chatter and noise. And by real progress, I mean applications that improve processes, reduce error rates or open up new possible uses here and now. Providing customers with an unimagined quality of service. Making life easier for employees. Allowing management to make better forecasts.

All of this is no less fascinating than the AI-related stories that make it into news magazines or onto talk shows. At least for business leaders and decision-makers who are thinking about the potential offered by AI applications today. The ones who are considering how to integrate that technology into their workflows.

To give you an idea of the opportunities presented by AI, we will regularly provide you with use cases here. Real projects, run by real companies using real technology. We're not talking about what will be possible in ten years. We're talking about what companies can achieve in ten weeks, with the right technology and the right expertise.



I hope you find some strategies and ideas in our examples that you can apply in your workplaces

If you would like to talk about your goals and the role that technology can play in achieving them, then I look forward to talking to you in person – without AI.

Best regards,

Benedikt Bonnmann
Head of the Data & Analytics Line
of Business | adesso SE

WESTLOTTO

The lottery ticket: goodbye manual, hello high-tech



INTRODUCTION

In the post-war period, the lottery business gained in popularity throughout Germany. At first, employees had to check by hand and with their own eyes all lottery tickets that arrived at headquarters from the point of sale. In the early 1980s, lotteries started to become more digital. Document readers read the lottery tickets into a central reader and saved them onto microfilm.

The rising number of tickets at the beginning of the 1990s made it impossible to bring each and every one to headquarters and register them there. The time was right for an online collection system connected to all points of sale that digitalised the tickets using lottery terminals with in-built scanners. These machines took up a lot of space, were expensive and required a lot of maintenance. The many moving parts made them susceptible to errors.

A few years ago, WestLotto took the initiative to find a space-saving alternative for points of sale that was also more cost-effective. The company's management decided on standard consumer tablets from Samsung, where they installed software that had been developed in-house and was full of artificial intelligence.

2023

Playing the lottery is now fully digitalised and is being migrated to the cloud.



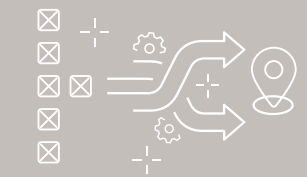
1990

Computer-assisted systems process growing number of lottery tickets.



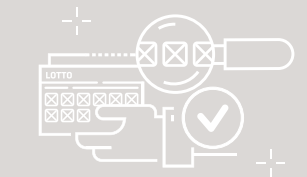
1980

First terminals at points of sale to scan lottery tickets and send them to headquarters.



1950

Lottery tickets processed manually.





WHERE AI COMES IN

ARTIFICIAL INTELLIGENCE – BECAUSE READING TICKETS SHOULD NOT BE LEFT TO CHANCE

Andreas Luckmann, Head of Sales Lottery at adesso, puts it succinctly: “Tablet-based collection of lottery tickets is an ambitious undertaking.” That is because WestLotto terminals at points of sale contain feed-in scanners. They flatten the ticket so that the selected numbers are correctly interpreted – even if the tickets are crumpled or stained. Tablets with integrated cameras have to find another way to do this.

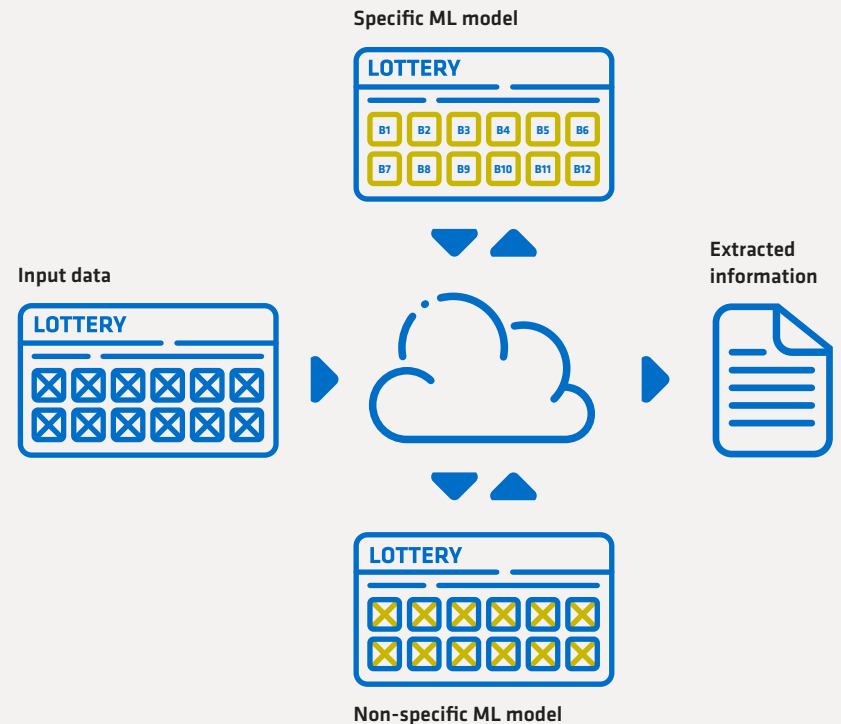
This is where AI comes in. Tickets are first photographed and sent to the cloud, where an object detection machine learning model identifies the fields and numbers selected. The result is compared to another machine learning model for identifying the numbers and analysed. The application automatically works around creases and stains, achieving high reading accuracy even in bad lighting. adesso experts are constantly training the AI application using live lottery tickets.

“In a matter of days, our experts developed a prototype that is able to interpret the photo of the numbers on the lottery ticket correctly.”

ANDREAS LUCKMANN
Head of Sales Lottery
adesso SE



USING AI TO READ THE LOTTERY NUMBERS





A fully fledged alternative

“Together with adesso, we have created a fully fledged alternative to conventional terminals that involves scanning and processing the tickets using the tablet’s camera feature.”

MICHAEL STÜCKER

Head of IT Development at
WestLotto



THE RESULT

AI AND CLOUD FOR EFFICIENCY AND ACCURACY

The benefits of AI-based lottery ticket recognition in the cloud are clear:

Space-saving

WestLotto can use the tablets as an alternative to the huge lottery terminals at the point of sale.

Cost-saving

Using standard consumer tablets with in-built cameras reduces procurement costs.

Cost transparency

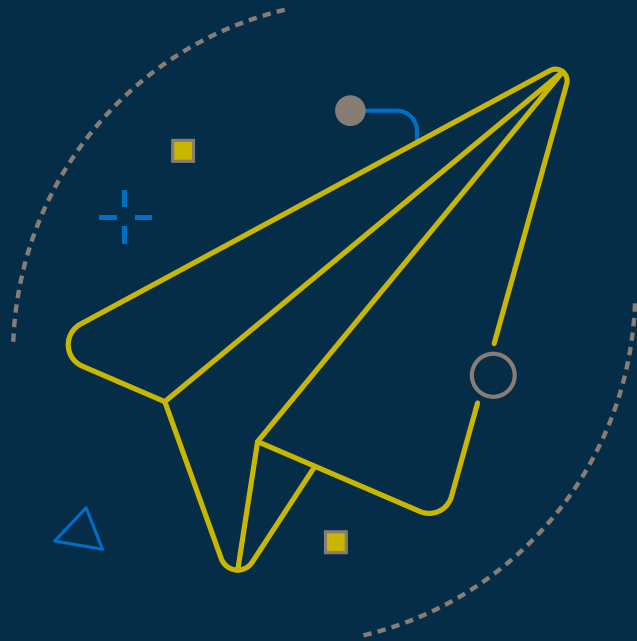
Cloud deployment of machine learning models with centralised support ensures a clear overview of costs.

Reading accuracy

Automated retraining of the machine learning models increases reading accuracy no matter if lottery tickets are crumpled or the photograph was taken in bad lighting conditions.

Scalability

Can be expanded to include other types of ticket by retraining the machine learning models using new training data.



Any questions?
ki@adesso.de | ki.adesso.de

adesso SE

Adessoplatz 1
44269 Dortmund
Germany
Phone +49 231 7000-7000
info@adesso.de
www.adesso.de