

Artificial intelligence for public safety

Digital Trust Challenge 12.3.

Applications for artificial intelligence in the operating environment of Erillisverkot's customers

ARTIFICIAL INTELLIGENCE

Machine learning



Forecasting resource needs
Real-time situation picture
Risk assessment
Simulation of leadership task
Forecasting the progress of the task

Context

Data

Computing
algorithm

CPU

Autonomous devices

Rescue robots
Service robots
Smart drones



Speech and text



Speech to text
Language recognition and translation
Voice control
Automatic classification of documents
Automatic interpretation of content

Mechanical observation

Character and face recognition
Augmented/virtual reality
Electronic nose
Recognition of sound source



What will artificial intelligence bring to Erillisverkot's customers in the 2020s?

” A drone flying above a forest fire area records the progress of the fire. Real-time image analytics combined with weather, topographic and vegetation data guides extinguishing robots to the optimum location for the mission. Image analytics also act as the foundation for real-time situational awareness and forecasting how and in which direction the fire is spreading.

” Virtual reality has replaced digital maps in presenting a real-time situation picture. The user can get to the middle of the situation in any virtualised location. This makes authentic exercises and simulations possible; for example, simulating the progress of a rescue mission in a specific building using different staffing and equipment options.

” Keyboard is not very significant as the user interface of a computer. Information systems are controlled by voice and speech information, such as diverse entries during the mission, are recorded in a format that makes it easy to find. This data is analysed afterwards and utilised in developing operations. Real-time automated translation between languages makes smooth communication between the parties possible also in international missions.

Objectives of Erillisverkot's customers in utilising artificial intelligence

” Reducing manual tasks.

” The real work is about acting, not recording.

” The aim is to boost the efficiency of the tools, methods and work both administratively and operationally so that people can spend their time on the core activities.

” Computer to support decision-making in difficult or fast situations

” Aiming to get more out of the same resources (investments, people).

” Artificial intelligence and digitalisation must assist/carry out the most simple and time-consuming tasks.

Main goals of the AI applications of Erillisverkot

- Supporting people's work and decision-making
- Releasing people's time from recurring and automated tasks to core activities

Challenges for Erillisverkot's customers in utilising artificial intelligence

” Shortage of resources, no actual people specialising in data analytics.

” Development is carried out alongside other duties.

” Utilising artificial intelligence is not something that everyone can easily do, it requires additional resources.

” Finding experts is challenging: they need to be trained in-house or recruited outside [the organisation].

Erillisverkot is required to provide

- Both readymade solutions and application platforms for utilising artificial intelligence
- Capability for utilising artificial intelligence and, in particular, ability to cooperate and share expertise in joint projects with customers



Thank You!