

## USE OF AI INTELLIGENCE/CHATBOTS and AUTOMATION OF LOGISTICS FOR INDUSTRY 4.0

**Keywords:** *automation of logistics, chatbot, artificial intelligence, Industry 4.0*

### Background to Case Study

*One of the key elements of the Industry 4.0 is the use of Artificial Intelligence (AI) in various businesses. As a result of that there comes the automation of the logistics sector. It improved the processes of delivery and distribution with the use of machinery or software. It also involves using a chatbot. Chatbot is a software application that operates to replace activities usually performed by a human. It is designed to simulate the exact actions and language so that they can give us an answers to any questions that we seek for. Delivery services, healthcare, banking, food industry or real estate are just a few examples of many industry sectors that make a full use of chatbots.*

*The following case study presents the use of AI by the SME that helps to improve company's efficiency by introducing an automated mailbox and chatbot. The result of that is that the company can reduce its human sources and reach much more customers than by using traditional courier services and call centres.*

### Introduction to the Case Study and it's growth within Industry 4.0.

*With the development of the digitalization our society became more mobile. We do not want to spend ages trying to book a courier and then wait for a delivery of the product. We want to communicate faster and in a more efficient way.*

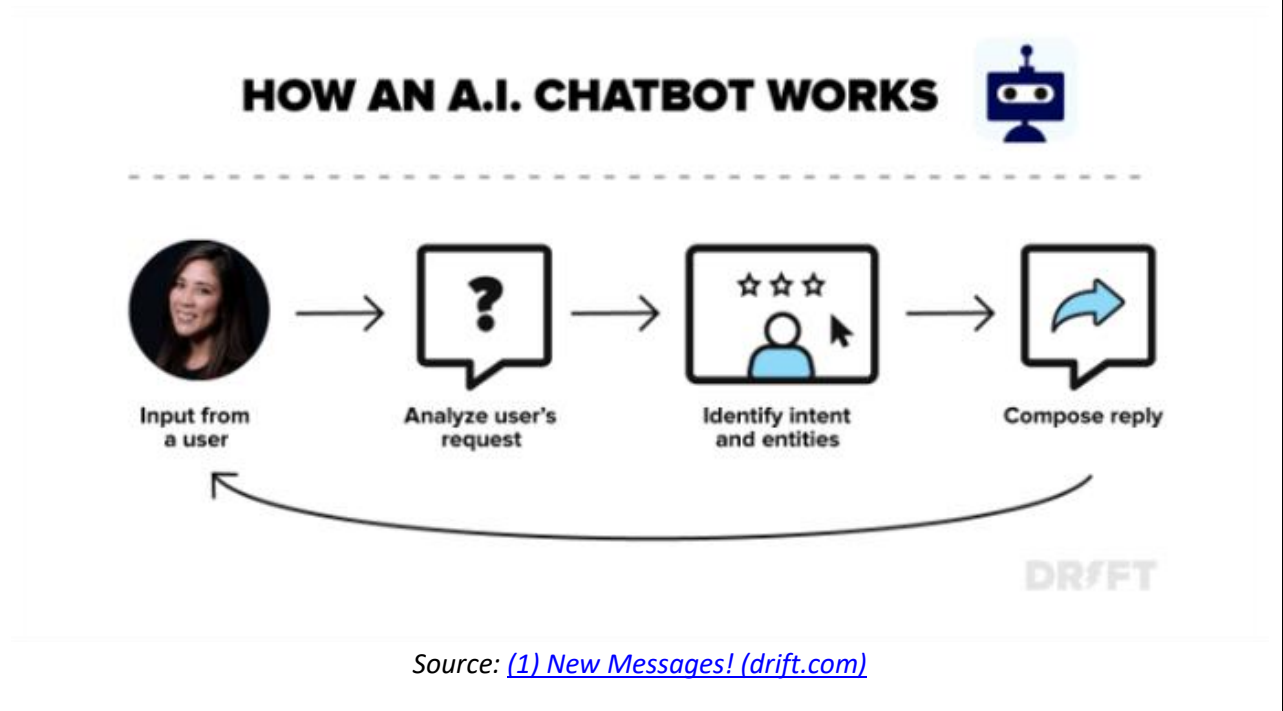
*Businesses have an answer for that. InPost is a company that has introduced an automated mailboxes as a way of reducing the time and cost for the delivery company. It allows business to reduce human interaction so that it brings lower costs and better efficiency. Delivering every package manually by courier takes much more time and effort as well as creates costs generation.*

*Following an automation path the company has also introduced a chatbot instead of a traditional call centre option. While relying just on humans it will take more time for a company to serve less number of customers at once. Use of chatbots can help reduce costs and bring better company's efficiency.*

*Apart from numerous benefits for businesses messaging apps also are very popular among customers as they are very convenient and save time. Chatbots are designed in a way that it imitates human speech, users communicate via interface or voice. Chatbot looks for the most applicable answer so that it seems like we talk to a real person.*

## The Case Study and Industry 4.0 Elements: A Pictorial Overview

*AI chatbots can not only understand language that they have already programmed in but also they can make changes according to certain patterns and thus learn new things.*



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### The Element Explored within Industry 4.0 Application.



Source: <https://inpost.pl/>



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*InPost is a polish company that in 2009 introduced a system based on modern devices resembling post office boxes, so called "Paczkomaty". It allows collection and sending parcels 24 hours a day, 7 days a week.*

*In 2018 along with an industry 4.0 development they introduced "Paczucha Bot" that is a chatbot designed to be a customer service tool able to show the status of a parcel, call the courier or easily find the nearest parcel collection point. Within less than a month of its creation, the InPost chatbot was used by over 12,000 users.*

*Revolutionary approach resulted in a great InPost success that is hugely popular nowadays. Customers can avoid waiting for a courier, long queues or picking up a parcel only at particular place at certain times. Lately they have also introduced a mobile app that opens the parcel box automatically and we do not have to do it manually on the touchscreen.*

### Application Target Audience

*The results of the case-study are intended for use by SMEs, Enterprises and Entrepreneurs.*

### Resources Used:

[Korzyści z cyfrowej transformacji, czyli praktyczne zastosowanie sztucznej inteligencji \(AI\) w biznesie - BRIEF](#)  
[\(1\) New Messages! \(drift.com\)](#)  
[Paczucha Bot sprawdza się doskonale! | InPost](#)

### Further Reading:

[Logistics automation: Big opportunity, bigger uncertainty | McKinsey](#)  
[The Role of ChatBot in Industry 4.0 | by Aydın Fevzi Özçekiç | Chatbots Life](#)