TECH RUPTION

Creating Data Solutions Together

STEP INTO THE WORLD OF BRIGHTLANDS TECHRUPTION

Knowledge crossing borders

Part of **Brightlands Smart Services Campus**

April 2023

PREFACE

LET'S BUILD THE FUTURE TOGETHER

Implementing new digital technologies is difficult to do on your own. The world is changing at a fast pace, and it seems almost impossible to stay on top of everything. In addition to that, data driven innovations often require a collaboration among multiple stakeholders to realize a substantial impact. Techruption partners greatly benefit from joining forces with other partners as they get access to exclusive knowledge, expertise, and data sources.

This is where Brightlands Techruption comes into play. An innovation program that brings corporations, governments, and knowledge institutes together, to experiment with the newest digital technologies. Many organizations have already experienced the benefits from Techruption by implementing solutions that have been developed in the program.

These solutions often lead to new products and services, higher operational efficiency, and better customer experience. Artificial Intelligence, Blockchain, Quantum Computing and secure data sharing are among our strengths. We combine these strong technological capabilities with a deep understanding of human behavior and ethical, legal, and social aspects (ELSA). Knowledge institutes like Maastricht University, Open University, Zuyd University of Applied Sciences and TNO, bring in the required technical expertise and process facilitating.

In this magazine you will get insights into how new digital technologies can make an impact on your organization including examples of functioning proof of concepts. Whether you are a business leader, a technologist, or simply someone who is interested in staying on the cutting edge of innovation, we believe that you will find something of value in this Techruption magazine. So dive in and explore the exciting world of collaborative innovation with disruptive technologies!

Let's build the future together.

Pieter Custers
Director Business Development
Brightlands Smart Services Campus

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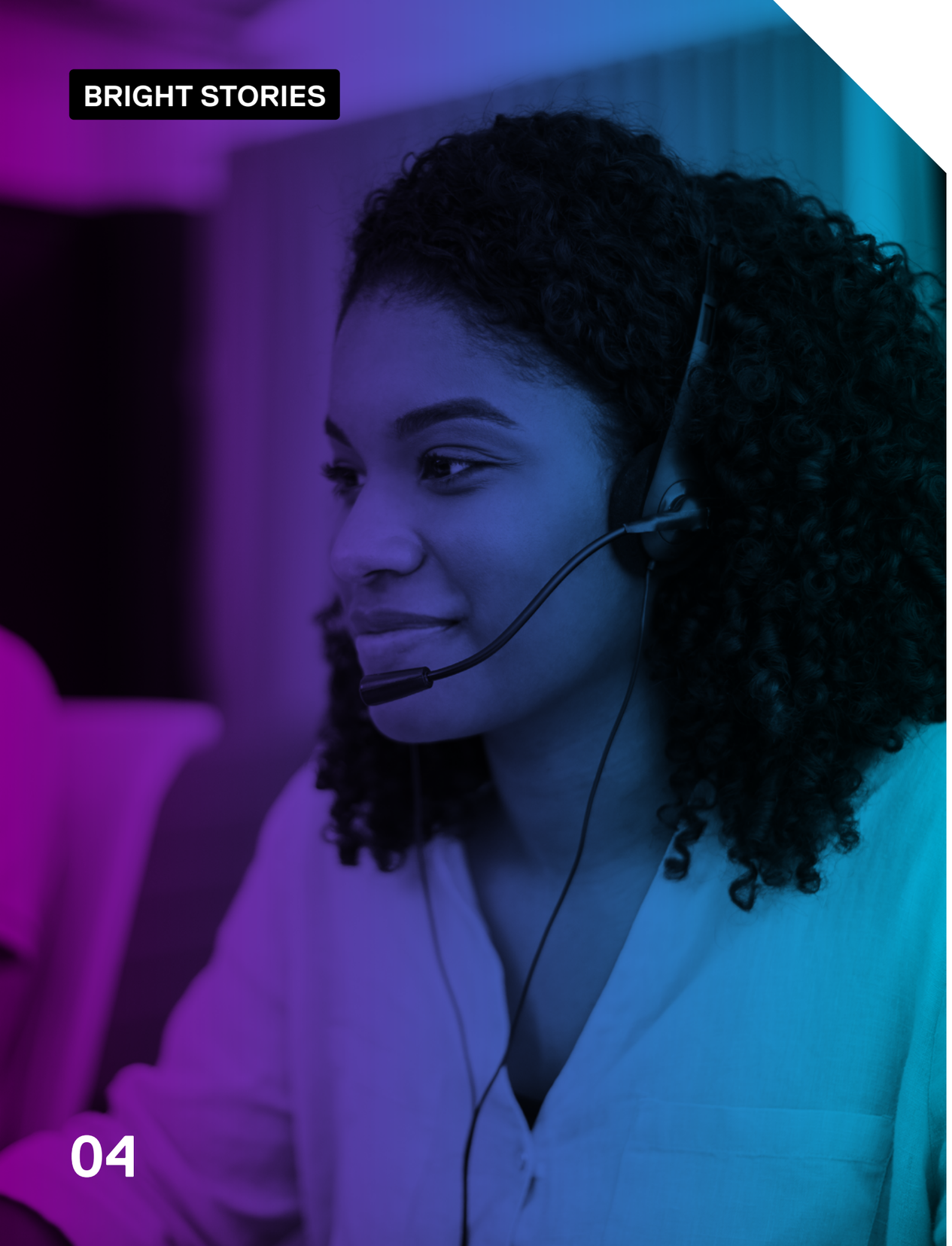

PARTNERS

Open Universiteit · apg · PGGM

TOPIC
Improve customer interaction

TECHNOLOGY USED
Artificial Intelligence: emotion detection, speech recognition

BRIGHT STORY#1
VERA-PROJECT

Pension providers APG and PGGM bemoaned the pressure of interpersonal stress their service agents endured in customer service interactions. They contacted Brightlands Smart Services Campus in Heerlen to find out whether a smart and innovative solution could be developed in a co-creative effort. A group of researchers from the Open University (CAROU) suggested to develop an algorithm that **automatically identifies customer emotions from voice** to help:

1. Call center agents recognize and regulate customer emotions better
2. Predict customer sentiment
3. Reduce call center agents' stress-level from service interactions
4. Increase customer satisfaction

LEARN MORE ABOUT THE USED TECHNOLOGY

BRIGHT STORIES

PROBLEM/GOAL

Companies and organizations are very interested in the opinions of (potential) customers and business associates who have had telephone contact with their call centers. However, the willingness of customers to leave reviews online or elsewhere is extremely low. The response rate to requests to fill out an e-mail form is barely five percent, and people's willingness to participate in telephone surveys taken immediately after a call is even lower.

'Anger, sadness, happiness, fear, surprise, disgust - these emotions can all be detected in the human voice with AI'

RESULT

CAROU researchers analyzed thousands of recorded phone calls from APG and PGGM and developed an algorithm based on six discrete basic emotion classes that they incorporated into a Voice Emotion Recognition Assistant (VERA): anger, sadness, happiness, fear, surprise, and disgust. Watch how it works:

WATCH THE VIDEO

DID YOU KNOW

In relation to this research, **Video Emotion and Gesture Recognition Assistant**, has been developed together with The Royal Dutch Association of Civil-law Notaries (KNB) and CAROU. This is an AI application that automatically recognizes emotions in videos based on people's facial expressions, non-verbal cues, and tone of voice. This application can help solicitors evaluate if clients understand them correctly during a video call.

"With VERA, we can now measure customer satisfaction much better. Each contact moment is evaluated by VERA based on the emotions measured. This means a response rate of 100%, which is fantastic."

René Rateischak
Head of the Groeifabriek at APG

LET'S CONNECT!

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