

## **Background & Challenge**

Every year, festival goers are faced with an endless stream of information while spending time at Roskilde Festival. You do not want to miss out on anything and have to make decisions all the time; where to go, what to eat, who to listen to?

The challenge was to create an experience while also helping people receive information in a more playful manner and avoid contributing further to the noise of the black mirror, also known as, our phones. We wanted to focus on how to utilize the intersection between humans and technology in a meaningful way, with the aim to create a different information delivery system at Roskilde Festival.

## **Solution**

A physical installation of a voice assistant for festivalgoers, The Duck, with emphasis on humanizing it with the use of gestures, such as blinking and mouth movement when responding. The aim was to add a creative level to the feedback the user would receive: a physical feedback and a voice reaction from the Duck. We wanted to make it interesting for the engaging user when asking the Duck questions, making the interaction more personalized.

The Duck is able to provide festivalgoers with concert recommendations based on their preferred genre and mood, as well as inform them of other experiences and artists appearing at the festival that year. It can also play a Spotify sample.

Hence the creative programming having emphasis on new Internet of Things (IoT) devices. We used Python and Javascript programming language to develop the feedback functionalities of the Duck, for example making the mouth move according to the sound waves analyzed through Python scripts.

The chosen solution consisted of two main parts, one was using gRPC (Google Remote Procedure Call) services together with Dialogflow on Google Cloud Platform to translate the questions into text and give back some answers based on RoskildeFestival data.

The second part was to get the response back from Google servers with text to speech, and translate those into moving parts, such as controlling a moving mouth, blinking eyes and arm movements accordingly.

With Roskilde Festival being curious to try out and engage with different technology, a voice-assistant that elevates the use of tech and voice the solution was seen as fitting. The solution was

therefore to develop a very unusual and fun way of using tech when it comes to the voice-genre, a revolution for digital interaction.

## **Result**

The Duck was located on the festival site quickly became a popular attraction on the festival grounds and ended up interacting with – and entertaining – thousands of people over the 4 days of Roskilde Festival.