



Meet 'Hi Accent': the first job robot for Google Home

As a member of the DEL20 community, Accent Jobs teamed up with delaware to launch the first-ever job robot for Google Home in Belgium. The result is 'Hi Accent', a chatbot that helps jobseekers look for suitable career opportunities just by talking to their smart devices. Since the start of the pilot project, 'Hi Accent' has evolved into a fully-fledged use case that strengthens Accent's position as a leader in digital recruiting.

"Hi Accent, what job opportunities do you have for me today?" If House of HR has any say in the matter, this question will soon become standard breakfast conversation in many households. After asking a few questions that allow for a more fine-tuned selection, the chatbot will provide a list of suitable job openings. These can be either read aloud or sent to the user's smartphone.

'Hi Accent' is designed to minimize the friction between jobseekers and recruiters. The result is a highly intuitive interaction that will please everyone and is particularly useful for people with impaired vision or motor skills.

1 Business talk

"House of HR launched their business case for 'Hi Accent' in Q3 2018 as part of the DEL20 program," says Nick Thienpondt, Mobile, Web & IoT solution lead at delaware. "We thought it was an interesting idea from the start, so when it was selected by the DEL20 community, we were eager to explore it further."

One of the core principles behind 'Hi Accent' is [natural language processing \(NLP\)](#): how computers understand (process and analyze) human language. "In Belgium, voice control hasn't quite caught on yet, but this way of communicating with digital assistants is quickly gaining traction everywhere else in the world," says Rens Bonnez, senior Mobile, Web & IoT consultant at delaware. "As a result, smart speakers like Alexa and Google Home are evolving rapidly. For House of HR, 'Hi Accent' is a way of staying ahead in this arms race and see how it can help optimize recruitment. For delaware and for the DEL20 community, the 'Hi Accent' project was a great way to explore the technical challenges and business opportunities of this market."

2 For AI, intuitive interaction doesn't come naturally

Chatbots, instant translation services, voice-activated personal assistants: NLP, or computational linguistics, is a major driver of today's AI revolution. While the origin of this technology can be traced back as far as the 1950s (with ELIZA, the first chatbot, emerging in the 1960s), there's still a lot of challenges to achieving a completely intuitive interaction. Rens explains what the challenges are.

Acronyms and synonyms

"Think about how many ways there are to, for example, confirm something. You can say 'yes', 'sure', 'ok' and so on. Often, a specific region has its own expressions as well. Things that mean one thing somewhere don't necessarily mean the same thing somewhere else."





Language scope

"It's not a coincidence that computational linguistics is miles ahead in English and Chinese compared to Dutch. The market is huge, which means the return on investment is a lot bigger as well."

Recognizing context

When and where you say something has a huge impact on the meaning of what you're saying. "We don't think about this when we talk to other people, but for digital assistants, recognizing this context is one of the most difficult things."

Listening and processing

And finally, there is the issue of being able to process what's been said. "Assistants do not always interpret the pauses in our conversations – for example, when we're searching for the best word or to denote a sentence – correctly. So, they will process your input instead of recording the rest of your sentence. In this way, pieces of your input get lost."

3 Talking tech

But how did we end-up using NLP for 'Hi Accent'? "We had to take a hard look at how the current process is being carried out by humans and identify how we could optimize it," Nick explains.

Traditionally, the recruitment process involves several steps:

- A job ad is placed online where it can be consulted by everyone
- Jobseekers select the open positions that interest them and apply for the job by sending their resumés and motivational letters
- Recruitment agents select suitable applicants and organize introductory meetings
- After this introductory meeting, the actual selection process starts

The above itinerary shows that there is clearly a lot of room for optimization. Both the jobseekers and the recruitment agents are looking for the same 3 things: relevancy, speed and convenience. The current process has exactly those 3 challenges as well. Rens: "The first thing we asked was 'how can we offer people jobs that match with their competences?'. To match a jobseeker's specific competences, we have to suggest really relevant jobs and do that as fast as possible. In the recruitment industry, speed is a true competitive differentiator: the moment you are the fastest to match a candidate with a job opening, you've won. In order to speed up this process, we needed to turn spoken words into a written resumé via speech to text. The challenge here is that everyone uses their own terminology to describe their competences. So, matching a broad set of competences (and different definitions) with the right job opening requires artificial intelligence and contextual search. Eventually, we evolved into a model that can cross-check your experience, competences and personality with the job application database to find matches – all of it powered by speech."



4 Connecting talent with tech

As a frontrunner in digital recruitment, House of HR has a reputation to uphold. Nick: "It's a very competitive field, where 'clients' – in this case, jobseekers – expect the right information to be handed to them instantly. As a recruitment agency, being able to deliver that information to your audience in the most frictionless way possible is a major differentiator. Don't forget: the main targets here are younger, often more skilled people. To connect with them, you need to explore those next-generation digital channels and make sure you're ready when they become the norm."

'Hi Accent' is available for both [iOS](#) and [Android](#) devices.

