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Applications of Portuguese Speech and Language Technologies

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A QA SYSTEM FOR MUSEUMS BASED ON A SPOKEN INTERFACE

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The QA system for museum is one of the earliest projects at our lab in the spoken dialogue system area. This system is based on DIGA (DialoGue Assistance) platform and simulates a museum guide, providing information about some of the museum displays.

The DIGA platform provides an advanced voice and video experience, including a speech recognition engine provided by AUDIMUS, speech synthesis engine provided by DIXI and a friendly virtual FACE that provide visual feedback using facial emotions. These voice and video engines are a front end for STAR dialogue manager which using the most advance Dialogue and Question Answering (QA) technologies to offer a rich and interactive dialogue experience.

We are developing multimodal interfaces based on AUDIMUS and DIXI engines and using the most standard technologies like VoiceXML.

This demo show our work at QA systems, dialogue processing and interfaces, and at spoken language recognition and synthesis, using the virtual face to a more realistic interaction. The demo presents a virtual kiosk one of the products offered by VoiceInteraction. This kiosk is running at the *Museu Nacional de Arte Antiga*, providing information about one of the exposed and recently restored object, the *Custódia de Belém*.

Visitants can interact with the system and ask any information about *Custódia de Belém*, using natural language. The system will search the answer for posed question using the most advanced question answering techniques, and used the VoiceInteraction dialogue manager to maintain an interactive dialogue, providing not only the requested information but related information too. The system can maintain an entertaining conversation for hours, only using information about the *Custódia de Belém*.