Two-way communication

About Project Smarta Fabriker: Digitalization and its connection to sustainable production is identified as a key enabler for increasing the number of jobs in Swedish industry. The purpose of Project Smarta Fabriker is to increase the attractiveness of technology and careers in industrial companies, and to spread knowledge about industrial digitalization. During the spring of 2017 a state-of-the-art demonstrator of a smart factory was developed by 80 students in collaboration with over 50 companies. The demonstrator is currently used for training students as well as employees of industrial companies. For 2018 this demonstrator is to be further developed implementing a variety of digital manufacturing concepts where Predictive Maintenance is one of the central themes. To learn more about the project and previous theses, visit www.smartafabriker.se (in Swedish).

Currently, the machines talk to us humans by sharing their data, but not the other way around. By implementing Two-way communication, we intend to achieve dialogs between machines and humans visiting the smart factory, for instance by posting on Twitter (or any other service of our own) to allow humans to ask questions to the machines.

Tasks

- Design a dialog pattern for Human-Machine voice interface
- To develop a chatbot that comprehends and respond in Swedish/English language
- The chatbot is to be develop on cloud by using cloud functions such as LEX in AWS, or any other equivalent in Azure
- Integration of the chatbot solution on Twitter or similar communication channel

Current Smart Factory mobile app is available at Apple Store & Google Play:

Means and location
This thesis is performed in collaboration with Cybercom’s Innovation Zone which will provide industrial support and supervision. Thesis students will have access to workplaces at Cybecom Lindholmen and a dedicated mentor specialized in Cloud functionality.

Conduction and requirements
This thesis work needs to be conducted by one or two students where at least one should be fluent in Swedish. Preferably, we are looking for students with interest in conversational interfaces, artificial intelligence and chatting with chatbots. The thesis is meant to start as soon as possible.

Contact
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Interviews are held continuously. To apply, send your CV and a cover letter to Gabriel Ibanez Gabriel.Ibanez@cybercom.com as soon as possible, but no later than November 30th, 2017.