[SORSE] About trust in conversational interfaces and maintainability of research software

Report of Contributions

https://indico.kit.edu/e/935

Contribution ID: **1** Type: **not specified**

Goodbot, Badbot? Engineering trust into conversational interfaces

Tuesday, November 10, 2020 10:00 AM (30 minutes)

As more people interact with bots driven by Artificial Intelligence, it is important to understand how to create relationships based on trust. The FinTrust Project at Newcastle University is looking at the role of machine learning in banking, particularly in the context of automated chatbots and how the presence of socio-emotional features impacts the intention to use. Researchers from social sciences and computing are examining how trust can be measured, how trust is gained and lost, and what implications this might have on design considerations.

The team has used theories on trust in automation, emotion, and theories of computer-human interaction to categorise trustworthy traits. Engineering these social cues as features into conversational interfaces has offered an interesting start to my RSE career, and spans a variety of areas from Natural Language Processing to careful UI Design. In this talk I will firstly discuss my step from industry into the RSE profession at the end of March, just a few days after severe lockdown restrictions where imposed by the UK government. The challenges of starting this new role and collaborating with colleagues I have been unable to meet in person have been significant, but ultimately very rewarding. I will explain my approach within this multi-disciplinary project to use Dialogflow to quickly leverage Google's powerful machine learning. This allowed us to build an operational chatbot prototype that was capable of exhibiting varying degrees of social presence, such as politeness, empathy and active listening. The talk will review the infrastructure design for AI powered chatbots, and illustrate how machine learning can interpret the intent of what users are saying, to gather information and respond appropriately.

Presenter: HORSFALL, Dave

Session Classification: Talks

Contribution ID: **2** Type: **not specified**

Learnings from developing and maintaining a research software that has been used more than 3 million times in the last 3 years

Tuesday, November 10, 2020 10:30 AM (30 minutes)

Manually annotated images and videos are a fundamental part of many research projects and industrial applications. However, manual image annotation tools are often designed to address one specific use case and lack the flexibility to be reused across different projects. Furthermore, these tools often have complex installation and setup procedure which presents a barrier to non-technical users. To address these limitations, we created the VGG Image Annotator VIA, which is a light weight, standalone and offline software package that does not require any installation or setup and runs solely in a web browser. The VIA software allows human annotators to define and describe spatial regions in images or video frames, and temporal segments in audio or video. These manual annotations can be exported to plain text data formats such as JSON and CSV and therefore are amenable to further processing by other software tools. VIA also supports collaborative annotation of a large dataset by a group of human annotators. The BSD open source license of this software allows it to be used in any academic project or commercial application.

The VIA software has quickly become an essential and invaluable research support tool in many academic disciplines. Furthermore, it has also been immensely popular in several industrial sectors which have invested in adapting this open source software to their specific requirements. In this talk, we will share our learnings from developing and maintaining this open source research software that has been used more than 3,000,000 times since its public release in April 2017.

Presenter: DUTTA, Abhishek (University of Oxford)

Session Classification: Talks