LIHLITH

Abstract
Learning to Interact with Humans by Lifelong Interaction with Humans

The LIHLITH project is a fundamental pilot research project which introduces a new lifelong learning framework for the interaction of humans and machines on specific domains. A Lifelong Learning system learns different tasks sequentially, over time, getting better at solving future related tasks based on past experience. LIHLITH will focus on human-computer dialogue, where each dialogue experience is used by the system to learn to better interact, based on the success (or failure) of previous interactions. The key insight is that the dialogue will be designed to produce a reward, allowing the chatbot system to know whether the interaction was successful or not. The reward will be used to train the domain and dialogue management modules of the chatbot, improving the performance, and reducing the development cost, both on a single target domain but specially when moving to new domains. The research will be evaluated on publicly available benchmarks to allow comparison with other approaches in the state of the art. When possible, systems will participate in international comparative/competitive evaluations such as WOCHAT or SemEval. LIHLITH project will also develop and deliver evaluation protocols and benchmarks to allow public comparison and reproducibility based on crowdsourcing. The industrial partner will transfer the research into technology, applying the lessons learnt to the development of chatbots for customer support. LIHLITH will rely on recent advance in multiple research disciplines, including, natural language processing, knowledge induction, reinforcement learning, deep learning, and lifelong learning.
(2016)
Lifelong Learning for Intelligent Systems (LLIS)

Partnership & Contact
LIHLITH starts in October 2017, lasts 36 months and involves the partnerships below. The financial support of CHIST-ERA is about 608379,32 €.

Attachment	Size
CHIST-ERA Call 2016 - LLIS Topic - LIHLITH 2018.pdf[1]	8.67 MB

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