



INFORMATICS COLLOQUIUM

Speaker:**Felix Härer, Otto-Friedrich-Universität Bamberg, Germany**

Knowledge Blockchains: Applying Blockchain Technologies to Enterprise Modeling

Abstract:

Since the inception of Bitcoin in 2008, blockchain technologies have evolved from money transfer to the tracking of intangible assets and their ownership. Based on cryptographically signed transactions and distributed systems technologies, applications based on blockchains can gain the properties of tamper-resistance and irrevocability. In this talk, we discuss a novel application of blockchain technologies in the domain of knowledge management for organizations. Based on the explication of knowledge in the form of enterprise models, so-called knowledge proofs allow for a. tracking the evolution of knowledge, b. tracking the provenance, ownership, and relationships of knowledge, c. the establishment of permission and delegation schemes for knowledge management, and d. the proof of existence of patterns in models via zero-knowledge proofs. For evaluating the feasibility of the approach, a technical implementation has been implemented based on the ADOxx meta modeling platform with a C++ DLL extension. For showing the main contribution of applying blockchain technologies to enterprise modeling, a use case is demonstrated. The approach has been published and presented at the HICSS conference in January 2018 and was nominated for the best paper award.

Bio:

Felix Härer is a researcher and teacher at the Chair for Information Systems, especially Database Application and System Development at the Otto-Friedrich-Universität Bamberg. In this position, 2014 - 2018, he taught courses on computer systems foundations and information systems software engineering in addition to lecture exercise courses. His research concerns conceptual modeling as well as software engineering methods and technologies, especially blockchain technologies and their application. In this area, Felix Härer currently pursues a doctoral degree, building on a master's degree ("very good with distinction") in Information Systems (2014) and related certificates (including a Cybersecurity MicroMasters degree). Before, he worked as a software developer on testing 3D angiography systems at Siemens AG, Imaging & IT Division (2009 - 2012) and as part of the forFLEX research project on implementing a modeling tool (2011).

Date and time: Friday July 20th, 2018, 11.00 am
Location: Pérolles 21, room C130, Bd de Pérolles 90, Fribourg
Contact person: Prof. Jacques Pasquier

The colloquium is free and open to the public.