

Master Thesis Computer Science 2022-2023

Department: Computer Science
Research Group: DISE [www.dise-lab.nl]
Thesis topic: Co-develop the disruptive graphical conceptual modeling language "DECENT"
Head supervisor: Dr. Ing. Jaap Gordijn
Daily supervisor: Fadime Kaya MSc
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The internet is evolving towards the next phase and that is decentralization. Assets, products, services as such will be exchanged, stored and traded decentral, with a strong focus on self-sovereignty of the end-user. Such a decentralized web requires a different approach in how rules of engagement are designed and decided. The past 3 years we have been working in close relation with industry strength cases on developing a methodology that enables to design the rules of engagement from a decentral perspective. Fadime (your daily supervisor) has been working on developing a methodology to design the rules of engagement for decentralized ecosystems. The rules of engagement, is a field we refer to as decentralized governance. To facilitate ecosystem design for decentralized governance we are currently developing a graphical notation language named "DECENT" which stands for Decentralized. The first prototype is developed and supported by the meta²-modeling platform ADOxx.

Together with Fadime you will continue working on extending the graphical notation of DECENT to its next phase and develop the tool and specifically on the semantics underlying at DECENT by using the Meta²-modelling platform ADOxx. This thesis is in collaboration with the University of Vienna, Computer Science, Knowledge Engineering group, and this master thesis project includes a visit to Vienna as well.

We ask for 2 Computer Science Master thesis students, and we strongly advise to follow our course MSc Disruptive IT ecosystems - which starts in January 2023.

Pro's:

- Work on a real case, and develop disruptive software
- Visit to the University of Vienna, Computer Science, Knowledge Engineering Research Group
- State-of-the Art supervision
- Positivity and pushing academic boundaries
- Fadime will give a workshop first to help you grasp the topic of study and you will have her full support

Con's:

- You will be challenged to think outside of the box, this can be challenging for some students.

End document.