Aalto University

Lessons learnt from the changes in the Finnish electronic identification

Title of the dissertation	Managing change in a dominant infrastructure for digital identification
Contents of the dissertation	Digital identity management (IdM) is a crucial aspect in any software system that needs to identify, authenticate and authorize the access of its users. It is an important step towards the digitalization of societies and the success and wide adoption of an IdM system is dependent on many factors: the solutions should be technically sound, scalable, economically viable, user-friendly and also recognize broad cross-domain integration aspects. Thus, the challenge of building and managing a large-scale IdM system is an integration problem that ranges from infrastructural, system-level integrations, to higher-level strategic, business, liability and trust aspects.
	The goal of this thesis is to identify the factors that affect the changes in dominant digital infrastructures and the problem is observed through the case of an IdM infrastructure in Finland. The Finnish BankID (TUPAS) ecosystem has a 30-year long history of a proprietary system as the de facto strong electronic identification method both in e-government and private sector services. The transformation of the Finnish IdM ecosystem in compliance with local (Finnish Trust Network) and EU (eIDAS) regulatory changes provides a unique case of the digital infrastructure's wide adoption followed by its sustained nationwide dominance and a forced transformation. The results help to explain the dependence on external dominant infrastructures and to derive theory-advised instructions for the governance of IdM infrastructures from both technology and organizational perspectives.
Field of the dissertation	Information systems
Doctoral candidate	Anar Bazarhanova, M.Sc. Born in Almaty, 1992
Time of the defence	05.06.2020 12:00 – 16:00
Place of the defence	Aalto University School of Science, lecture hall TU1, Maarintie 8, Espoo and via remote technology https://aalto.zoom.us/j/64652125712
Opponent	Professor Marko Seppänen, Tampere University of Technology, Finland
Custos	Professor Kari Smolander, Aalto University School of Science, Department of Computer Science and LUT University
Electronic dissertation	https://aaltodoc.aalto.fi/handle/123456789/44024
Doctoral candidate's contact information	Anar Bazarhanova, Department of Computer Science, anar.bazarhanova@aalto.fi +358 46 9519364