

Multi-jurisdictional Compliance for Software and Mobile Applications

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Abstract

Regulatory Compliance Software Engineering (RCSE) is one of the most challenging problems that software engineers and designers face. To ensure protecting the privacy and confidentiality of the data, governments introduce many new privacy-related regulations across multiple jurisdictions. In addition, the trend towards service-oriented computing provides new opportunities for reuse, as software designers and engineers can leverage existing services to meet their own needs. This also means that the services need to ensure compliance with multiple regulations across several jurisdictions and they need to adapt very quickly to the regulations of the new market. Dr. Ghanavati's work lies in the field of RCSE and focuses on multi-perspective analysis, modeling and mining of legal documents and developing legally compliant processes and software systems in multi-jurisdictional environment.

Her work to date has been focused on business and software compliance with multiple regulations, understanding, analyzing and comparing privacy-related regulations in multiple jurisdictions and on how to re-topicalize regulations to help creating requirements specifications and business processes which are compliant with the privacy-related regulations and protect the privacy of the end-users. Much of the work so far has been done through developing a requirement management framework, called Legal-URN. Legal-URN helps analyze regulations in the same way as other types of requirements, and provide methods to evaluate compliance and compare legal statements across multiple jurisdictions.

Extending on the previous work, Dr. Ghanavati aims to develop methods for providing a shared viewpoint between different stakeholders such as end-users, software designers and developers as well as the legal experts and to compare regulations semi-automatically and to automatically extract the relevant requirements from the legal texts. In this talk, Dr. Ghanavati will provide a brief overview of RCSE and privacy engineering discipline. Next, she will discuss her current contributions to the field and her future plans on developing software systems or mobile applications that are legally compliant in multiple jurisdictions and can adapt very quickly to the changes in the environment, the system and the regulations.

Bio

Dr. Ghanavati has got her PhD from the University of Ottawa, Canada and has done her Postdoctoral studies at Luxembourg Institute of Science and Technology. She was also a visiting faculty at the department of Computer Science at Carnegie Mellon University for a period of five months. Her work so far has been published in more than 28 proceedings and journals and has more than 515 citations.