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# Legal Issues in Software Engineering

## CS-C3150 Software Engineering

Cloud-based services, like clouds in the sky, continue to shape, alter and evaporate (Senftleben, 2013). Businesses are nowadays shifting their assets to cloud because of the various benefits it provides, including ease of deployment and reducing the maintenance and infrastructure cost. However, cloud services presents an array of pitfall and threatens a storm of legal implications. These risks and considerations are often very important and are generally overlooked by the unwary. While cloud-based service providers try to avoid relying on collecting societies and creative industries, one of the key issues is the breathing space granted by copyright law outside the scope of exclusive rights. (Senftleben, 2013)

Although cloud services provide the gateway for new innovations which pushes up the efficiency and convenience, but they pose many legal risks and considerations. One of the biggest legal aspect to be considered while using cloud services is confidentiality and data security. The main difference between cloud softwares and traditional softwares is that in cloud softwares the user data is not stored on the local machines but it is stored on overseas severs which may be accessed exclusively by the user or it may be shared among many users. By using cloud softwares you, as a customer, don't have absolute privacy and security over your data. The customer should have the right to know about which vendor personnel would have access to the data and what steps the vendor would take to ensure data confidentiality. Since the data is not on local machines, the user should have the right to access it anytime. The user should also have the right to delete his/her records, even if the contract ends or the service provider stops working.(Pavolotsky, 2010) Another important legal consideration to be kept in mind is the service level of the cloud software. The business case and the intended use of the service should be made clear in the beginning itself. It is important that both parties understand what problems would the service solve, when and how the service would be used and the practical consequences if the service is down or its quality degrades. If the service is business critical then is of utmost importance to have a reliable and continual access to the service. The customer should have the right to terminate the contract if the service level fails

over and over again.(Pavolotsky, 2010) If the company provides services in many countries, then copyright limitations can play an important role. Copyrights laws differs from country to country and so does the strength of the copyrighted material. The strength of the copyrighted material depends on the business law enforced in the user's country which may not be equivalent to the company's copyright. The company also has a secondary responsibility to infringe the content made available by cloud service to the users. In this context, safe harbors for hosting are of particularly importance(Senfleben, 2013). The so-called safe harbor involves storing the third-party content without any active involvement in the choice of the hosted material. Companies usually want to depend on a harbor that is based on the assumption that a general monitoring requirement would be too heavy a burden on platform providers.(Senfleben, 2013)

Legal automated reasoning is an excellent tool for providing legal reasoning advice to developers. I think that using automated reasoning can be a very effective way of tackling the above mentioned legal aspects. In this reasoning system, a legal expert captures the rule-like essence of legal norms and the definitions and relationships between legal concepts. A domain expert formalises the software and its environment. The automated legal reasoning then occurs within an integrated software development system based on the given software which involves the developer's involvement. Considering the very user-focused legal aspects of cloud-based services, automated legal reasoning can advise developers based upon formulations of legal expert and domain expert to write 'safe' softwares for the users. The main goal of this system is to provide decision support for the developers and to advice them to achieve lawfulness at lower costs and time consumption. Also, legal automatic reasoning increases developers' awareness of user issues by advocating them to "translate" and show individual consequences in the software.(Oberle et al., 2012) The code is more reliable and legally compliant as its legal consequences are checked in the development phase of the software itself. An important point to remember is that, while legal automated reasoning will help to grasp these legal aspects, it can not fully overcome these problems. It is still prone to errors which can be due to bugs in realisation or due to wrong interaction of the developer during subsumption.(Oberle et al., 2012)

## References

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