Liability for machine-made decisions: gaps and potential solutions

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1. Gaps in the liability system for machine-made decisions

The current system of liability for machine-made decisions contains significant gaps.

According to the traditional principles of Tort Law, liability requires there to have been a breach of a duty of care ("fault") by a human being. In areas where a machine acts autonomously and makes and executes decisions itself, there is no human behaviour which could be considered to be deficient. Traditional Tort Law does not recognise direct attribution of a breach of a duty of care by a machine to its operator or user. Therefore, to the extent Tort Law requires there to have been a breach of a duty of care by a human, machine-made decisions are not covered by Tort Law.

2. Requirement for specific regulation of liability

The risks posed by machine-made decisions are forcing significant developments in the civil law liability system. This liability system must create incentives for all parties involved, in particular, the manufacturers and users of the system, to avoid damage being caused. Moreover, it must take into account both the ability of the parties to control risks as well as the possibility to enforce claims arising from such liability under the rules of civil proceedings.

a. Insurance and liability funds

One element of the liability system could be the introduction of an insurance-based solution which could, if necessary, be complemented by a liability fund for situations which cannot be covered by insurance. Such a step would require important changes to the existing legal system. The solution is rightly linked to the idea of the registration of autonomous systems in public records so that the scope of its application can be described exactly. However, the registration of a system needs to contain appropriate risk-related information about that system

which means that there must also be appropriate classification of autonomous systems. Such appropriate classification does not yet exist.

b.   Principles of responsibility for machine-made decisions

A suitable liability system for machine-made decisions must solve numerous fundamental questions.

aa.   Addressees of liability

A balanced liability system must appeal to all of the parties who are in a position to reduce the risks which arise from the use of autonomous systems. Therefore, the liability system for machine-made decisions must address the manufacturer as well as the operator of a system and must take each party's specific ability to control and bear risk into account.

bb.   Principles of liability

The liability system for autonomous systems must also answer questions about the appropriate basis for liability, in particular the use of a fault-based liability concept or a strict liability concept. Here, a differentiating solution should be favoured using strict liability to the extent reasonable for the addressees of liability. The user of an autonomous system, especially if it is a consumer, cannot be faced with an unreasonable liability risk.

cc.   Enforceability

The development of a liability regime for machine-made decisions must also accommodate the possibilities for enforcement. The offering of a relaxation of evidential burdens in civil procedure is therefore a necessary element of an appropriate liability regime for autonomous systems.

3.   Conclusion

The risks posed by machine-made decisions require development of the Civil Law liability system to allow insurance-based solutions and the inclusion of the registration and classification of autonomous systems as well as specific regulations for liability for systems acting autonomously to play an important role. .