



Consumer confidence in digitalisation requires modern product liability

Key points

- The 36-year-old Product Liability Directive no longer reflects technological developments. The use of algorithms, artificial intelligence (AI) or smart devices (IoT) in everyday consumer life was a pipe dream in 1985. Digitalisation risks are thus not covered by product liability.
- Devices that are connected to the internet, such as digital voice assistants, robot vacuum cleaners or smart TVs, can have a wide variety of security flaws. It is usually unclear who is liable for faulty programming, failed software updates or for security gaps that hackers abuse. Consumers who have been adversely affected are the ones who lose out.

Background

Media reports about dangerous security gaps caused by incorrectly programmed or easily hackable software are now commonplace. The Süddeutsche Zeitung, for example, has found countless evidence of serious vulnerabilities in cheaply produced everyday devices that are constantly online ([Süddeutsche Insecure Internet of Things](#)). The more devices are networked, the more likely security breaches and targeted cyberattacks become. Such attacks can lead to network congestion and the malfunction of important services and notifications. Unauthorised third parties can gain remote access to networked devices. It is bad enough when smart door locks on the front gate or a car are hijacked by hackers ([Smart Home Security Vulnerability: Open for clever burglars - Digital - SZ.de](#)). However, it is impossible to imagine the consequences if digital medical devices are also misused ([Hacked pacemakers - KATAPULT magazine](#)). The findings are unanimous:

the Internet of Things is growing faster than its security. If damage occurs as a result, consumers are often left to pay for it.

The EU Commission has published a report „on the implications of artificial intelligence, the internet of things and robotics in terms of safety and liability“ (COM(2020) 64). Its maxim: „A clear security and liability framework is particularly important both with a view to ensure consumer protection and legal certainty for businesses“.

This is because new risks are inherent in digital products and services:

- Through **connectivity**, i.e. online networking, **autonomy** and **data**, they can perform tasks with little or no human control or supervision. AI-powered products and services can also improve their performance by learning from experience.
- Their **complexity** is reflected both in the diversity of economic actors involved in the **supply chain** and in the multitude of components, parts, software, systems or services that together form the new digital ecosystems.
- In the process, **new and old technologies are likely to clash for a long time to come** and raise complex legal issues: AI will interact with traditional technologies, for example, which would make liability issues even more complex. Autonomous vehicles, for example, will share the road with conventional ones.
- Added to this is the **openness** through updates and improvements after market launch, which forces one to constantly keep an eye on the error-proneness of these technologies.

- The enormous amounts of data involved, the reliance on algorithms and the **opacity** of AI decision-making make it difficult to predict the behaviour of an AI-enabled product and understand the potential causes of harm.
- Connectivity and openness can make AI and IoT products vulnerable to **cyber threats**.

The Product Liability Directive introduced strict liability in 1985

The manufacturer is liable for damage caused by a defective product. Liability only covers personal injury and property damage caused by design, production, or instruction errors, and only when a movable, tangible product is put on the market. An excess of 500 euros applies to injured parties in the event of property damage. The manufacturer or importer is exempt from liability if he proves that the product (probably) did not have a defect when it was put on the market or that the product corresponded to the state of the art. The injured party must prove the damage, the defect and the causal connection between the defective product and the damage. EU and national legislation complement each other: the victim of a car accident, for example, has a strict liability claim against the vehicle owner, who has taken out the motor vehicle liability insurance, and one against the manufacturer of the defective car under the title of product liability. A fault-based liability claim would exist against the driver.

Main findings

Objectives and proposals of the EU Commission:

- The EU Commission's **motto** is: It is important that victims of accidents involving new digital technologies do not enjoy any less protection than with conventional products, because this could lead to them „being used only tentatively“.
- Against this background, the **term „product“** should be expanded (to ensure that damages are also awarded for injuries attributable to software or other digital features). It is also doubtful whether the definition of „other product“ on which damage is caused is up-to-date. For example, a car with a faulty parking assistant would have to be considered a „different“ product for manufacturers to be liable for damage to the car.
- There is a need for clarification so that **software developers are also regarded as manufacturers** within the meaning of the Product Liability Directive.

- The national **rules on the burden of proof** are not suitable for products and services based on AI: they are insurmountably high (even expert witnesses have difficulty proving the error and its attribution to a specific responsible party). From AK's point of view, easing the burden of proof is more than overdue: Consumers are already failing to prove fault and causality when seeking redress. These difficulties become even greater with software, algorithms, AI, etc. Due to the black box problem (opacity of the technical processes and the companies involved), the incalculable further development of self-learning software, the lack of expertise and investigative analysis possibilities on the part of consumers, the current burden of proof situation de facto means an exclusion of product liability for digital products and services. Due to the imbalance of power, it will be essential to provide for a reversal of the burden of proof, among other things.

Problems that the EU Commission merely addresses, without proposing a solution:

- The Commission report does not contain any proposals on the **justification of the development risk** in software. The responsible parties can currently plead that the defect was not foreseeable according to the state of knowledge at the time the product was placed on the market. In AK's opinion, this exemption from liability is completely outdated for products and services that are constantly changing through updates and machine learning.
- It is also unclear whether **contributory negligence** on the part of the victim reduces liability. Software developers would like this to be the case if the injured party does not carry out security-relevant updates of the software.
- The **black box character** of AI is also problematised in a completely open-ended way: „Autonomously acting AI applications perform a task without each step being predetermined and would eventually no longer be directly controlled or supervised by humans at all. Algorithms based on machine learning can be difficult or impossible to understand. Accordingly, it is difficult to obtain compensation for damage caused by autonomous AI. The need to understand algorithms and AI requires the most expensive analytical tools and expertise“. In AK's opinion, product safety standards are therefore necessary for every form of AI and algorithms – not only for high-risk applications as stated in the EU Commission's draft regulation for AI. Liability insurance for manufacturers and

commercial users of these technologies should also be introduced. This is the only way for injured parties to obtain redress, especially in cross-border cases involving a large number of liable parties.

- The **concept of placing on the market** is outdated with regard to self-learning products that change, once on the market. Modifying a product through machine learning can compromise its safety. The Commission's only question on this is „under which conditions the manufacturer's liability is extended by the self-learning properties and to what extent the manufacturer should have foreseen certain changes“. From AK's point of view, the manufacturer should be liable for changes to the product over its entire lifetime.

Other conspicuous deficits:

- **Inclusion of immaterial damages and violations of fundamental rights in the concept of fault:** Typical damages will be intangible and difficult to measure (breach of confidentiality, discrimination, etc.). The Product Liability Directive does not currently cover intangible damages at all.
- An excess of 500 euros applies in the event of **property damage**. For those affected, it is still not comprehensible why they do not receive full compensation for damages. In view of the high risk propensity of digital technologies, an excess for the injured party is not at all appropriate. Consumers will be exposed to the harmful consequences of digital products that they do not even actively use. They can suffer damage due to the processing of their data, automatic individual decisions or legal requirements (such as digital assistants in vehicles).
- A **10-year statute of limitations** is too short. The Product Liability Directive provides that all claims expire after ten years from the date on which the product was brought onto the market. Whether it is the harmful effects of digital trends, pharmaceuticals, chemicals etc., the 10-year time limit should be significantly increased. It should be borne in mind that the harmful consequences of some technologies will only become apparent in the long term. Technological development will also make it possible to detect errors inherent in the system only in the longer term.
- The **description of defects and the bringing of a product onto the market does not correspond to the digitisation risks:** With AI, for example, there will hardly be a flawless end product, but only a constantly changing status. The time of putting

the product on the market will no longer mark the transition from the in-house testing phase to a distribution phase for a standardised product. Liability would have to be assumed if freedom from defects or compliance with the state of the art cannot be proven over the entire service life.

- **There is no compulsory insurance for manufacturers.** Autonomous vehicles, for example, are not treated differently from conventional vehicles, even though they pose significantly higher risks. Insofar as the risks cannot be reduced to zero for individuals, groups or the population as a whole by imposing strict product safety standards, all stakeholders in the value chain should be required to take out liability insurance. Otherwise, those responsible can too easily evade their obligation to pay by going bankrupt or relocating to third countries. The current optional liability limit of 70 million euros for personal injury is also no longer risk-adequate. Insofar as a limit of liability should be necessary for reasons of insurability, the maximum sum should be raised significantly. Loss scenarios are conceivable, for example, in which products or services distributed worldwide can cause mass damage to millions of affected persons.
- There should be **joint and several liability** among all the companies involved. Because according to the draft EU-KI-VO (self-certification instead of official ex ante approvals), it will often not be possible to find out which activity was the cause of the error and damage. A correct attribution of the error to one of the parties involved (software developer, programmer, manufacturer, platform operator, commercial user) is not reasonable for consumers.
- Independent, **out-of-court dispute resolution** bodies are necessary so that consumers do not fall by the wayside when it comes to enforcing their rights. All producers and users in the value chain should establish a „single contact point“ for consumers and co-finance dispute resolution systems according to the „polluter pays“ principle.

Demands

- A revised Directive must also be applicable to non-tangible objects, digital services, digital content, i.e. software, databases, networked devices, algorithms and AI.
- Products that pose cybersecurity risks, that do not receive necessary updates or that are not GDPR-compliant should also be considered „defective“.
- The ability to self-learn and make autonomous decisions should be considered a „defect“ if it causes harm to users or third parties.
- Misused or stolen data should be included among the damages to be recovered.
- The excess for property damage (500 euros) and the maximum liability value (70 million euros) should be dropped.
- Consumers should only have to prove the damage and that there is a causal connection with the product (with a high degree of probability). Under no circumstances should the consumer be required to prove which defective component from which supplier is the cause.
- All companies involved (hardware and software manufacturers, AI developers, mediation platform providers, commercial AI users, etc.) should be jointly and severally liable, i.e. consumers can hold each of them liable for damages. The jointly and severally liable parties can clarify the exact attribution of responsibility through recourse.
- Consumers should not be guinea pigs: the plea of typical development risks or compliance with technical standards must not be an exemption from liability.
- A publicly accessible register should list all defective products.
- What is needed is liability insurance for all companies involved in the value chain, a „single point of contact“ for injured parties and an out-of-court dispute resolution entity.
- Excellent detailed proposals for the revision of the Directive are contained in the BEUC position paper „[Product Liability 2.0](#)“.

Literature

Report from the Commission on the safety and liability implications of Artificial Intelligence, the Internet of Things and robotics:

[Register of Commission Documents - COM\(2020\)64 \(europa.eu\)](#)

Federation of German Consumer Organisations (Verbraucherzentrale Bundesverband – vzbv): Analysis of the need to change EU product liability law

[Gehackte Alarmanlagen, gefährliche Rasenmäherroboter | Verbraucherzentrale Bundesverband \(vzbv.de\)](#) (in German)

Christoph Busch: Rethinking Product Liability Rules for Online Marketplaces - A Comparative Perspective

[\(PDF\) Rethinking Product Liability Rules for Online Marketplaces: A Comparative Perspective | Christoph Busch - Academia.edu](#)

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