Product liability in a world of automated products and digital distribution channels

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SUMMARY
1. Introduction
2. Automated products
3. The concept of defectiveness, state of the art and 'system errors'
4. Digital sellers and producers?
5. Conclusion
Bibliography
1. Introduction

Automation and digitalization are increasingly affecting the everyday life of ordinary people. The development of automated products is well under way. The first automated cars are being tested, the same goes for ships, and robots that can assist people in everyday life matters are being developed as are other, smaller automated devices. At the same time, some of these products (and products in general) are increasingly sold via digital platforms as distribution channels.

As automated products assist with or even take over human functions in society, various liability questions arise. In general, the introduction of automated products will transfer focus from human errors to technical errors. This also means that the focus will be transferred from liability for human activity to liability for products and the producers of products. This brings into play product liability law.

This article analyses the application of some central product liability concepts with regard to automated products and digitalized distribution channels.

2. Automated products

According to art 2 in the directive, a ‘product’ means ‘all movables,...., even though incorporated into another movable or into an immovable...’. It follows from this definition that an immovable (real estate) is not considered a product. Apart from that, all movable objects are as a starting point covered by the definition. This means that automated objects, such as robots, self-driving cars, other means of transportation and automated devices used in everyday life qualify as products under this definition.

However, also separate parts of the automated product may qualify as products. This follows from article 4(2) in the directive, according to which a manufacturer of a part of a product qualifies as a producer under the directive. This raises the question whether the producer of digital content, that forms part of an automated product, may be held liable under product liability law.

The answer to this question depends on whether the digital content qualifies as a product under the directive. As explained above, a product is defined as a

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movable under the directive. Digital content may be integrated into something moveable. For instance, digital content may be delivered as software in a separate consignment and the software may subsequently be built into the product. Likewise, software on a disc or on a USB stick has a physical appearance. Obviously, the disc itself would be regarded a product under the product liability directive and if it causes physical damage, for instance, by leaving colour traits on the table on which it has been put, the disc might also be regarded as defective. However, the relevant question with regard to digital content does not concern damage caused by the physical product. It concerns the information inherent in the software since it is this information that causes the damage. Consequently, the relevant question is whether this information qualifies as a defective product. The answer ought to be independent of whether the digital content has been delivered embedded in something physical or not. In accordance with this, the Liability Report proposes that strict liability should apply to defective products ‘irrespective of whether they take a tangible or digital form’. In support of this solution, it could also be mentioned that the new directive on certain aspects concerning contracts for the supply of digital content and digital services, establishes a non-conformity liability regime for digital content and digital services.

Nevertheless, and despite the fact that the product liability directive does not explicitly state that the concept of a product only applies to tangible objects, the wording of the product liability directive is often understood as forcing a distinction between tangible and non-tangible products. This is reflected in legal literature where it is argued that (only) software embedded in a physical object can be regarded a ‘product’, emphasizing the ‘inextricable link with the product itself’. Also, some policy reasons may speak against qualifying digital content in itself as a product. Thus, if software is qualified as a product it might be argued that in reality it is information in general which is hereby qualified as a product. This might have uncertain consequences. For instance, if information itself is a product, then, potentially statements of different kinds would also qualify as products. Certificates might qualify as products, potentially rendering certifiers subject to strict liability under product liability law.
The question how to qualify digital content under product liability rules is unsettled in European jurisdictions.\(^6\)

To the extent digital content qualifies as a product under the directive, the producer of the digital content (the IT provider) would also qualify as a producer under the directive. Consequently, the IT provider would be subject to strict liability.

### 3. The concept of defectiveness, state of the art and 'system errors'

The product liability rules are only applicable if the product that has been put on the market (here the automated product or the digital content) suffers from a defect. Under the product liability directive, the definition of the defect turns on the concept of ‘the safety that one is reasonably to expect’.\(^7\) The concept is a rather broad one. Thus, it is added that ‘all circumstances’ must be taken into account.\(^8\) The basic question is what one is reasonably to expect with regard to the safety of an automated product. The criterion is an objective one, i.e., what is decisive is what an average person would normally expect. Since it is well known that automated products will not always be flawless, the public may not necessarily be entitled to expect 100% safety (see further below).

At least three different categories of cases can be thought of.

One category will concern the situations in which damage is caused due to programming errors in the automated system. For instance, existing guidelines have not been followed with regard to this specific product. In this case, the system will quite clearly be defective.\(^9\)

Another category of cases will concern the situations in which damage is unavoidable and the automated product behaves in exactly the way it has been programmed to do in order to cause as little damage as possible. For example, it damages property rather than persons. In this situation, the product (the automated product or the software system) does not suffer from a defect and product liability can be ruled out.

However, a third and more complicated category exists. It concerns the so-called ‘design defects’, i.e., situations in which the product is defective

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\(^{7}\) Art. 6 (1)

\(^{8}\) Art. 6 (1)

\(^{9}\) See Wagner, 2019, p. 43, on manufacturing defects.
because of the way it has been thought out. Although it is generally foreseen that automation will improve safety, it is also appreciated that automated products will not be 100% safe. It will not be possible to develop algorithms that will always generate the optimal behavior of a robot and it will not be possible to carry out the amount of tests necessary to fully ‘bugtest’ systems. 10 Deciding in this situation when an automated system is and is not defective is a difficult task. In particular, it has been pointed out that subjecting an automated system to ‘human operator test’ would miss the mark, since automated systems will cause damage in other types of situations than human beings 11 and furthermore that with regard to self-learning systems, the learning process unfolds not with regard to one specific product but with regard to a whole series of products, generating a need for a ‘system-oriented concept of design defect’ which focuses on the question whether the series of products operated by the same algorithm ‘causes an unreasonable number of accidents overall’, whereas the question whether the specific accident in question could have been avoided by a human operator or another algorithm should be irrelevant. 12

A ‘system-oriented concept of design defect’ has something in common with the Scandinavian legal concept of ‘system errors’. 13 The concept deals with situations in which a product has a necessary, negative effect, which is generally accepted in society, because the advantages of the product outweigh the disadvantages. A manufacturer is free from liability for this type of damage. Damage caused by pharmaceuticals is an example. 14 In order for the manufacturer to be exempted from liability for system errors, three conditions must be fulfilled: 1) the risk of damage must be unavoidable, 2) the risk must be generally known, 3) the risk must be generally accepted in society. A risk is considered unavoidable if it is not possible to produce the product here, the automated product) with its desired main characteristics without at the same time generating some undesired negative effects. 15

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11 Wagner, 2019, p. 44.  
12 Wagner, 2019, pp. 44-45.  
14 Also tobacco and alcohol can be mentioned, Blomstrand, Broquist, Lundstrom, 2012, p. 53.  
15 For a risk to be generally known it must be generally known to the public; see, for example, the Norwegian case Rt 2003.1546, concerning tobacco. With regard to the requirement that the risk must be generally accepted, public law regulation prohibiting or allowing the marketing of the product can be taken into account, see Ulfbeck, 2010, p. 231.
The concept of system errors was originally viewed as an exception to the general rule on product liability. Today, the concept is regarded as embedded in the concept of a defect under the directive. In other words, if a risk is unavoidable, generally known and generally accepted, then the product will most often have “the safety which a person is entitled to expect.”

Arguably, the concept of the system error could become relevant for handling damages caused by various autonomous products with certain unwanted, but unavoidable negative effects that society chooses to live with. If applied, the concept will have as an effect that the producer of the automated product or the software is exempted from liability in these situations.

In contrast, if a product is found to be defective because the negative side effects exceed what can be regarded as accepted by society, it seems questionable whether the development risk defence will protect the producer against liability. On the one hand, it may impossible to detect the problem in the system even using “knowledge at the most advanced level” which would speak in favour of exemption from liability. On the other hand, it is generally known that the system is not 100% safe. It is questionable whether the development risk defence would be activated in this situation, given that it is the purpose of the defence to protect the producer against ‘unknown’ risks.

4. Digital sellers and producers?

As described above, not only the automated product itself but potentially also the software may qualify as a product under the product liability directive. This means that it may be possible to hold liable not only the manufacturer of the
automated product, but potentially also the software producer. However, today, consumers often undertake their purchases on the internet via digital platforms. This raises the question whether it might be possible to hold liable also the digital platform for damage caused by a defective product.\footnote{In Europe, the E-commerce directive proceeds from the starting point that digital platforms are exempted from liability.\footnote{Directive 2000/31, articles 12-14. The exemptions concern platforms that offer three types of services; ‘mere conduit’, ‘caching’ and ‘hosting’. Collaborative platforms that facilitate commercial exchanges between buyers and sellers may fall under the category of ‘hosting’ if sellers upload information about their products on the platform.} The exemption from liability applies as long as the platform is merely a passive facilitator of contact between commercial actors. To the extent that the platform plays a more active role and takes control of the content on the platform, the exemption is not applicable.\footnote{This question, of course, arises whether the product causing damage is an automated product or not.} Collaborative platforms facilitating commercial exchange between buyers and sellers will often take a more active role and thereby not be protected by the liability exemption.}

In Europe, the E-commerce directive proceeds from the starting point that digital platforms are exempted from liability.\footnote{For German law, see BGB 164 II: §Tritt der Wille, in fremdem Namen zu handeln, nicht erkennbar hervor, so kommt der Mangel des Willens, im eigenen Namen zu handeln, nicht in Betracht (‘Offenheitsprinzip’). For Danish law, see Andersen, Lennart Lyne and Madsen, Palle Bo, 2017, Aftaler og Mellemmænd, 7th ed., Djøf, p. 310. For Scandinavian Law in general, see Lando, Ole et al. (eds.), 2016, Restatement of Nordic Contract Law, Djøf, p. 118. In English law, the principles on the ‘undisclosed principal’ are related.} The exemption from liability applies as long as the platform is merely a passive facilitator of contact between commercial actors. To the extent that the platform plays a more active role and takes control of the content on the platform, the exemption is not applicable.\footnote{The exemption is also not applicable to certain types of platforms such as search machines.} Collaborative platforms facilitating commercial exchange between buyers and sellers will often take a more active role and thereby not be protected by the liability exemption.

In addition to this, it is a general rule, recognized in many jurisdictions, that if an intermediary has not properly disclosed to be an intermediary and the intermediary appears to the third party as the contractual party, then the intermediary may be held liable as a contractual party.\footnote{For German law, see BGB 164 II: §Tritt der Wille, in fremdem Namen zu handeln, nicht erkennbar hervor, so kommt der Mangel des Willens, im eigenen Namen zu handeln, nicht in Betracht (‘Offenheitsprinzip’). For Danish law, see Andersen, Lennart Lyne and Madsen, Palle Bo, 2017, Aftaler og Mellemmænd, 7th ed., Djøf, p. 310. For Scandinavian Law in general, see Lando, Ole et al. (eds.), 2016, Restatement of Nordic Contract Law, Djøf, p. 118. In English law, the principles on the ‘undisclosed principal’ are related.} Moreover, in case C-149/15 (Watthelet), the CJEU applied this principle to a sales transaction and held an intermediary liable as a seller under the directive 44/99 on consumer guarantees. In other words, it is possible to be regarded a ‘seller’ of a product under the directive even if the product has never been owned by the ‘seller’. In Danish law, this principle has also been applied in the context of platforms. In the case U 2016.1062 Ø, the platform ‘GoLeif’ facilitating the purchase of air tickets from various airlines, was regarded the seller of the tickets on the basis that the platform had not made it sufficiently clear that the consumer was in fact dealing with the airline. The cases illustrate that – in the circumstances – a digital platform may be deemed a seller (hereinafter a ‘seller-platform’) under the rules of sales law even if the intention of the platform was only to act as an intermediate, if this has not been communicated in a sufficiently clear way to the purchaser. In such situations, the platform can also be held liable for non-conforming products under sales law.

This raises the question whether – in the circumstances – a digital ‘seller-platform’ could also be held liable for damage caused by a defective product.
Legal systems often recognize that liability under sales law also covers consequential loss in the shape of physical damage to other things caused by a non-conforming product. This is also the solution adhered to under CISG. In these situations, product liability is imposed on the seller based on the contract. Consequently, it must be assumed that if a digital platform in a concrete case is deemed a ‘seller’ under sales law it will also be possible to impose product liability on the ‘seller-platform’ based on the contract, in national legal systems that recognize the contract as a basis for product liability claims.

However, only the party to the contract with the ‘seller-platform’ (the buyer) would be able to rely on the contract. Due to the principle of privity of contract, a third party suffering damage caused by the product would not be able to base a product liability claim on the contract. It could be considered whether there could be other ways in which third parties could pursue product liability claims against digital ‘seller-platforms’.

According to the product liability directive art. 3, section 2, not only the actual manufacturer of the product is considered a producer but also someone who imports products into the EU. One might ask whether a ‘seller-platform’ of a certain product and thereby – legally – ‘stepping into the shoes’ of the actual seller of the product, should also be regarded an importer of the product if it originates from outside of the EU.

The mere fact that the platform vis-à-vis the buyer has been deemed the seller does not seem to force this result. Thus, the basis for – under certain circumstances – deeming a platform a seller under sales law is that the buyer could reasonably rely on the impression of the platform being the actual seller. There is no reason why this reliance on the part of the buyer with regard to the status of the platform should influence the position of a third party who has been injured. It could also be argued that the main policy reason for imposing product liability on the importer under the directive is to insure that an injured party protected by the EU product liability regime can always sue someone in the EU. This goal is not necessarily achieved by regarding digital platforms as importers. In contrast, digital platforms will far from always have their place of business in the EU.

25 Thus, the product liability directive explicitly states in article 13 that the directive does not affect rights and duties under ordinary contract law and tort law.

26 See, for instance, LOCKOSKY, Joseph (2017), Understanding the CISG, 5th ed., p. 82.
Consequently, it is unclear whether third parties will be able to hold a digital platform liable under the product liability directive even in situations where the platform is deemed to be the seller vis-à-vis the buyer.

5. Conclusion

As the above analysis has shown, both automated products and digitalized distribution channels raise complicated product liability questions to which there are not always clear answers. It could also be argued that product liability concepts are challenged by these new technological developments. Thus, product liability rules were originally developed to tackle damage caused by physical products being distributed between physical producers and suppliers. Today, both products and suppliers appear in digital shapes. This raises the question of the possible need to adjust product liability rules to a new reality.

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