



Session #3

Who is liable when AI fails?

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Introduction

New risks from AI products

Digitalisation brings fundamental changes to our environments and impact on liability law:

Complexity & user understanding

Limited predictability

Opacity/lack of transparency "the black box"

Data-driven

Openness & security

Inadequate safety measures

Vulnerability

Autonomous behaviour

Sensory or environmental interference

Continuous adaptation

Inadequate training data

An outdated regime – where does AI liability fit in?



Characteristics of AI challenge **product safety definitions and concepts** including "product", "producer", "harm", "damage" and "defect" and consumer expectation test

AI raises new and novel **liability risks**, issues and uncertainty

Changing **nature of the products**, complexity and integration brings new challenges

Software updates, alteration through interaction with other products or consumer mis-use, new supply chain models and data via machine learning raises **complex liability questions**

More actors in the AI supply chain and **potential liable defendants**

Challenges with **burden of proof** and causation as well as navigating complex AI systems to prove case

An outdated regime – where does AI liability fit in?

The European Commission has therefore proposed new law to address the issues and give victims more options to seek legal compensation:



New liability questions

A person operating a technology that carries an increased risk of harm to others e.g. AI driven robots in public spaces

Service provider has more control than the owner or user of a product or service equipped with AI

Operator using technology which has a degree of autonomy or fully autonomous system with complete control over decision making

Manufacturers of products incorporating emerging tech and changes to product after it is placed on the market

Impact of software updates and failure by software provider to update software or consumer error in failing to download it



The EU, UK, US liability framework

Summary of New EU PLD proposals



AI and Software products will be covered.



The burden of proof in cases involving technology / AI could be reduced for claimants. Presumption of causality.



The definition of defective has been extended – cybersecurity requirements and software updates will be relevant considerations.



Defendants to have greater disclosure obligations to provide claimants with more information about technology / AI relevant to their claim.

New AI Liability Directive – where does this fit in?



New AI Liability Directive to cover non-contractual liability, i.e. situations in which a party such as the user, developer or provider of the AI system is at fault (for example has acted negligently) and the claimant has suffered harm as a result.



It is designed to assist claimants whose claims are outside the scope of the New PLD and who would need to establish fault under their national legal systems to obtain compensation.



It proposes measures such as ensuring that the burden of proof is alleviated in complex AI cases (in a similar way to the New PLD) to assist claimants in obtaining compensation.



What is happening in the UK?



- UK Government is undertaking its own review of product safety and liability rules – OPSS consultation
- UK taking a pro-innovation approach to AI regulation and not creating an extensive new framework of rights for individuals
- New non-statutory guidance to be published and principles to be implemented in practice by existing regulators to adopt a proportionate and risk-based approach
- Principles will apply to any actor in the AI lifecycle whose activities create risk
 - Safety, security and robustness
 - Transparency and explainability
 - Fairness
 - Accountability and governance
 - Contestability and redress
- First global summit on AI safety to be held in the UK

US landscape



CPSC approach and new safety standards

- Consumer Product Safety Act (CPSA) / Children's Product Safety Rules
- CPSC Report - Artificial Intelligence and Machine Learning In Consumer Products

US voluntary standards

- UL3300, ICO/IEC 30141, NIST AI Risk Management Framework,
- ASTM F3463 Standard Guide for Ensuring the Safety of Connected Consumer Products

Why the current approach appears to be inadequate.

- Foreseeable hazards of using AI / Machine Learning are unique
- AI / Machine Learning product safety differs from traditional approach



AI enabled products

Case Studies (1)



Smart Home products

smart washing machine incorporating AI technology aimed to improve the washing process. Sensors to detect the volume, weight and fabric of each load. Smart washing machines also offer consumers the option to start, pause or stop washing cycles with a smart phone, tablet or assistant. Smart kettle to be operated remotely via an app or virtual assistant. Main concern is security related but potential safety risks where apps not updated, sensors fail etc.



Connected toys

pairing with other physical products such as drones, smartphone app and risks arising from interaction with other products. Again main concern is privacy protection and particularly of minors but also pose safety risks in event of a malfunction.



Robotics

becoming increasingly prominent in consumer products and healthcare. Separate to AI but share many characteristics; they can combine connectivity, autonomy and data dependency to carry out tasks and make decisions with little or no supervision. Robotic lawn mowers can cause injury i.e. not stopping in time when crawling children are close, sensors failing, rotating blades, robotic chefs, home health assistants. Safety risks if commands fail, navigation malfunction, voice command failure, emergency calls etc.

Who is liable?

Case Studies (2)



Diagnostics/imaging

multiple players involved: producer/manufacture, physicians, healthcare organisation. Potential risks for patient include false negative or false positive findings, failure to provide necessary treatments or unnecessary treatments with harmful side effects. Causes could be multiple including product design or manufacturing defects, lack of training data and inadequate AI training, breach of care by healthcare professionals in reading results/diagnostic errors, false/bias data input, negligence/operator error.



Self-driving car control system

these systems use computer vision as well as iteratively learning from real time driving data to create a model capable of understanding the road environment and what action to take. Directly control speed, motion and direction of the vehicle. Safety and control risks if presented with unfamiliar input, decisions in a hazard approach which leads to an accident, opacity regarding decision making, black box etc.

Who is liable?

Practical steps for Manufacturers/Producers to take



Review legislation changes and developments in standards

Review product liability risk profile and insurance coverage

**Consider undertaking a separate risk analysis of software / AI elements in products
(including any developed by third parties)**

Review document retention policies and disclosure processes

Speakers



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Our next sessions



Session #4: 12. September | 17.00 CEST | 16.00 BST
AI, lawful bases, transparency and fairness:
how to thread the GDPR needle.





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