ARTIFICIAL INTELLIGENCE:
Thinking About Law, Law Practice, and Legal Education
Criminal Law Facing Challenges of AI: Who is Liable for a Traffic Accident Caused by Autonomous Vehicle?

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Where AI and Criminal Law meet?

• “AI may play an increasingly essential role in criminal acts in the future.” (King, Aggrawal, Taddeo and Floridi, 2019)

Fields of „collision“:

• War crimes (military, autonomous weapons: https://www.youtube.com/watch?v=e_DsE9f5gyk)

• Traffic crimes

• Medical law (AI in medicine and medical error): https://www.youtube.com/watch?v=-5lzGk7dgCQ

• Other potential areas of substantive criminal law: market manipulation, price fixing, cartel offences, drug-related crimes, torture, cyber-frauds... etc.
Where AI and Criminal Law meet?

• Fileds of „collaboration“:

• AI and the judicial system

• AI to predict crimes (e. g. *Correctional Offender Management Profiling for Alternative Sanctions – COMPAS in the USA*)

• Police departments in the United Kingdom - including Durham, Kent, and South Wales - are already using facial recognition and behavioral software to prevent a crime before it occurs. Computer-driven evaluation frameworks are being used to inform custodial and sentencing decisions.
AI and traffic crimes

• 4 levels of AI in automobile technology (*National Highway Transportation Safety Administration* – NHTSA):

1. „*Level 0*“ – driver has full control, driving mode is manual
2. „*Level 1*“ – certain functions are automatic but driver still keeps full control
3. „*Level 2*“ – system is driving and driver is monitoring the road and is able to take over the driving if needed
4. „*Level 3*“ – system is driving autonomously, driver is only a passenger
Examples from practice

• Uber self-driving car caused death of a pedestrian in Arizona: https://www.youtube.com/watch?v=_2pEKTG7-9s

• Tesla self-driving car caused multiple-vehicle collision in California

• Chinese driver turned on the auto mode in Tesla and went sleeping at the back seat: https://www.jutarnji.hr/autoklub/garaza/glupost-godine-upalio-autopilot-na-tesli-pa-zaspao-na-straznjem-sjedistu/8695802/
If accident occurs, who (what) is to blame?

• AI?
• Driver/passenger?
• Manufacturer?
• Programmer?
• Distributer?
• Nobody?
Awareness of the problem

• E. g. in U.K., the government is to review the law before the arrival of self-driving cars on UK roads, considering issues such as whether this type of transport requires new criminal offences.

• The three-year review, to be conducted by the Law Commission of England and Wales, and the Scottish Law Commission, will look at how traditional laws need to be adjusted to take account of issues including self-driving vehicles not having a human at the wheel or even a steering wheel.
Criminal liability of AI?

- “there is an ever-greater urgency to answer the question of blame, as robots become increasingly sophisticated and integrated into our lives” (Hu, 2018)
- Criminal law has already moved limits at least twice (criminal liability of legal entities, cyber-crimes)
- Two questions:
  1. Is this kind of even liability possible?
  2. Is it pointless?
Reasoning *pro et contra*

• *Contra:*
  1. Criminal law can punish only those acts that are result of „free will‟,
  2. AI doesn`t have moral and ethical brakes and moral consciousness;
  3. There are no adequate criminal sanctions for AI;
  4. There isn`t even a small possibility of general and/or special prevention (deterrence)
Reasoning *pro et contra*

• *Pro:*
  1. Law needs to adjust to modern life standards;
  2. Criminal law already accepted the concept of criminal liability of legal entities;
  3. „Free will” – is not an absolute category – it is based on estimation;
  4. What is „moral blame”? – empirical research
Driver?

• Level 0 – 2 full liability of the driver
• Level 3 - ? :
  1. Negligence/predictability of consequences?
  2. Causality/possibility to react?
  3. Legal status: driver (with the duty and responsibility to prevent) or passenger (no such duty)?
• My opinion: driver could be liable only if he or she tried to engage in driving process
Manufacturer/Programmer/Distributor?

• Two options: intention and negligence
1. Intention – means that M/P/D has intentionally programmed the machine to cause harm – rare in practice
2. Negligence - more likely in practice
• Different legal systems have different legal approach
German law

• To hold M/P/D liable, one must prove:

1. Forseeability of consequences – difficult, if not impossible to prove (since AI is able to make autonomous choices)
2. Failure to take preventive measures
3. Causality – causal nexus between such failure and consequence

Another problem: German law does not recognize criminal liability of legal entities!
German law - solution

• **M/P/D will be liable only if he/she** didn`t take prescribed measures (sufficient product testing, meeting high technological standards, creating clear and precise users manual, controlling the product etc.)

• However, in certain cases of very advanced AI systems, criminal law will have to accept that there is no causality – this is acceptable level of risk of living in modern society (Gless, Silverman and Weigend, 2016)
Swiss and Croatian law

• Similar to German law, with two main differences:

1. they recognize criminal liability of legal entities (if prosecutor proves organizational failure) and

2. Swiss and Croatian Criminal Codes prescribe certain type of so-called offences of abstract endangerment, which enable moving criminal law protection into very early stage (e.g., a person will be hold criminally liable if he/she/it failed to take preventive measures, even if it didn`t caused any consequence in sense of actual harm to another person – they will be liable for causing the state of „endangerment“)
U.S. law

• Advanced in this field, if one compares it to European systems (common law vs civil law issue)
• The development of „robot-law” as a specialized branch of law
• The concept of *vicarious liability* – tort law concept that is also applied to criminal cases
• This concept is wider than the one in European systems since it is not necessary to prove organizational oversights
• Prosecution must (only) prove that legal entity (corporation) delegated certain authorities on its employee (similar to JCE) – this prevents scenario in which nobody is to blame
Nobody?

• Is that acceptable?
• Interests of victim vs interest of society vs the need for the development of technology?
• Is restitution (and tort) law sufficient tool or not?
Questions that still remain open

• Is it socially desirable to regulate AI technology with provisions of criminal law?
• Traditional concepts of substantive criminal law (guilty, causality, participation etc.) vs. new forms of crime
• Criminal liability of legal entities as a global concept
• The question of acceptable and unacceptable risks
• The (new) system of criminal sanctions
• The need for new criminal offences (in criminal codes) of abstract endangerment
• Ethical guidelines in responsible development and use of AI
Thank you for your attention!