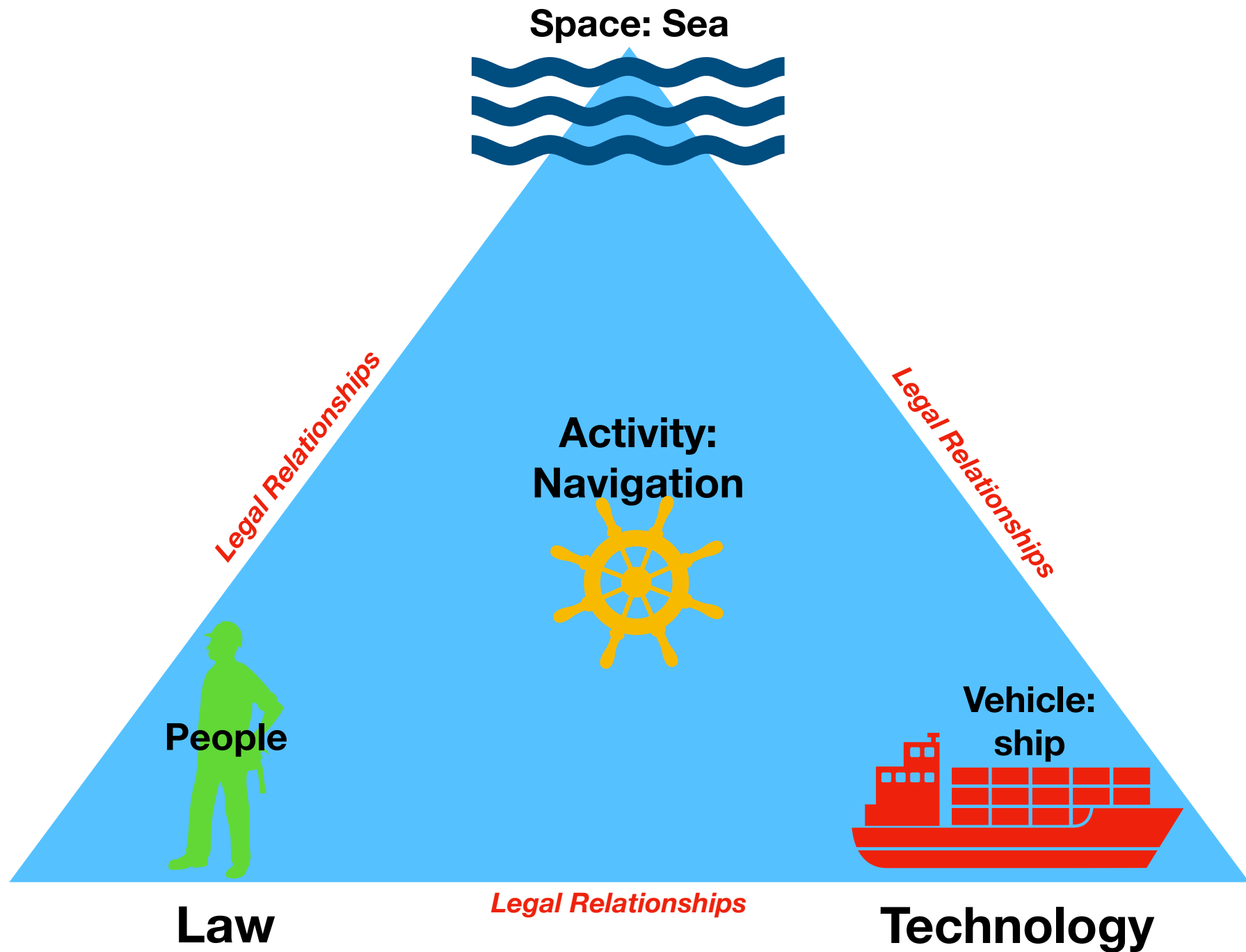


Autonomous Ships Civil Liability Issues & AI

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Phantom ships, ¿phantom liability?

Autonomous ships: different legal approaches on AI liability

1. Fault (negligence) liability
2. Compensation Fund
3. Legal personality
4. Strict Liability

Autonomous ships: different legal approaches on AI liability

1. Fault (negligence) liability

- **damage, fault** (lack of diligence) of the producer and **causal link**
- human features
- difficulties in establishing "the" cause or link of the damage (problem of causation)

2. Compensation Fund

3. Legal personality

4. Strict Liability

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In **favor**: the advance of the digital technology

Disadvantages:

- The amount of the probable indemnities is passed on in advance in the price of the asset and the transportation service.
- The fault as a requirement would make the producer never be considered negligent, simply because there would not be a design or construction problem.
- The damage could not be attributed to him.
- The decision causing the damage would have been generated by AI, which, in its learning process, would have made a decision generating a harmful result.
- The burden of proof that the claimant would have to face may be unaffordable (almost impossible).

Autonomous ships: different legal approaches on AI liability

1. Fault (negligence) liability

- Public compensation fund has been proposed (in a similar approach in case of oil pollution damages)

2. Compensation Fund

- The victims would not claim the producer (shipowners or other maritime operators) but the State. Problems:

3. Legal personality

- No one, therefore, would have incentives to invest in order to achieve this risk-reduction

4. Strict Liability

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- “electronic” legal personality to AI systems
- legal personality = separate patrimony (corporations?)
- several legislative problems related to their legal capacity and how they act when performing legal transactions

Autonomous ships: different legal approaches on AI liability

1. Fault (negligence) liability
2. Compensation Fund
3. Legal personality
4. **Strict Liability**
 - The applicability of the strict liability system provided for the UE **Directive on liability for defective products**

1. **General principle:** that the producer is liable for damage caused by the defect in a product they have put into circulation for economic purposes or in the course of their business

- **Scope** of the product liability regime rests on the concept of product (does not apply to liability arising from services) → Ship as product? AI product or service?
- Key element of the product liability regime is the notion of defect

2. Directive's liability system **eliminates or reduces the burden of proof by establishing a strict liability system**, which is well integrated with market mechanisms, by facilitating the impact of the producer, in advance or no, the costs derived from the compensation in the price.

3. Although the Directive establishes **strict liability**, it provides (art. 7) that the **producer shall not be liable if he proves** (defenses or exonerations causes):

(b) that, having regard to the circumstances, it is probable that the defect which caused the damage did not exist at the time when the product was put into circulation by him or that this defect came into being afterwards; or

(e) that the state of scientific and technical knowledge at the time when he put the product into circulation was not such as to enable the existence of the defect to be discovered; or

4. Liability must not only be strict (with a certain number of defenses or exonerations), but must also **be joint and several**.

- In case of AI, additionally must be considered jointly liable the manufacturer of the physical support to incorporate the AI system (software updates or the initial designer if it were different from the manufacturer).
- Anyone who was professionally entrusted with the function of monitoring of the decisions made by the AI system should also be considered liable.



Thank you very much for your attention