

AI-Insurance

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AI-Insurance

- Alan Turing, (*Computing machinery and intelligence*, Oxford University Press, vol. 59, n° 236, Oct. 1950 ;
- Dartmouth Conference 1956, Marvin Minsky et John McCarthy,
- Frank Rosenblatt, (*Principles of Neurodynamics: Perceptrons and the Theory of Brain Mechanisms*, ed. Spartan Books, 1962).

- **Regulation on Artificial Intelligence** , « AI Act » (Reglt. UE 2024/1689 13 june 2024, JOUE, 12 jul. 2024, L. 1/144 (into force, 2nd Aug. 2026, some prohibitions started 2nd feb. 2025)

- **Directive 2024/2853**, 23 oct. 2024 **on liability for defective products** and repealing Council Directive 85/374/EEC (transposition before 9 dec. 2026)

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Few EU regulations on Insurance

Mostly about freedom of establishment and freedom to provide services:

- Dir. 92/49/ of 18 June 1992, « 3rd non-life insurance directive »
- Dir. 92/96 of 10 Nov. 1992, « 3rd life insurance directive
- « Compliance » Regulation: Directive 2009/138, 25 Nov. 2009, (Solvency II), about harmonised prudential framework for insurance firms; creating EIOPA (European Insurance and Occupational Pensions authority)
- Insurance Distribution Directive, 2016/97, 23 feb. 2016
- LUX. “Loi du 27 juillet 1997 sur le contrat d'assurance” (updated 1st Jan. 21)
- Lux. Law of 7 December 2015 on the insurance sector, updated, 1st July 24 (governance)

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'AI system' *“means a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments;”* (art. 3, 1 “AI Act”)

Lux. Law 27 July 1997

“For the purposes of this Act, the following definitions shall apply:

A. Contract of insurance: a contract under which, in return for the payment of a fixed or variable premium, one party, the insurer, undertakes towards another party, the policyholder, to provide a benefit stipulated in the contract in the event that:

- in non-life insurance, an uncertain event occurs that the insured has an interest in avoiding;*
- in personal insurance, an uncertain event occurs that affects the life, physical integrity or family situation of the insured.*

An insurance contract is considered to be a nominative contract based on capitalisation techniques and including a beneficiary allocation clause.”

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Assessment of the risk

Lux. 1997 Insurance Contract Law /art. 11 Obligation to declare

The policyholder is obliged to declare accurately, at the time the contract is concluded, circumstances known to him/her which he/she can reasonably be expected to consider as constituting elements of risk assessment for the insurer.

However, the policyholder is not compelled to declare to the insurer any circumstances already known to the insurer, or which the insurer should reasonably know.

In life and health insurance, the same obligation applies to the insured, insofar as information is requested from him or her.

Genetic data may not be communicated.

If certain written questions are not answered by the insured, and the latter has nevertheless contract, the insurer may not, except in the case of fraud, later rely on this omission this omission.

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Assessment of the risk

At the time of the conclusion of the contract (the insurer accepting the risk, as any bank accepting a loan), the issue is to assess the risk

- Questions by a chatbot (at present time no AI)
- At the same time, browsing the information accessible on websites (=public or private accounts on social media networks and Art. 6 **GDPR**, 2016, "lawfulness of the processing", prior consent to the treatment 6, 1, a / or b, to get the contract concluded)
- AI and blockchain might improve the recording of the data and their sharing /personal data are submitted to GDPR rules on data transfers (art. 44 and follow.); safe within the EU

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Management of the risk/loss

- . Lux. 1997 Insurance Contract Law Art. 14 - Fault and negligence

*Notwithstanding any agreement to the contrary, but without prejudice to Article 103, point 1, the insurer cannot be required to provide cover in respect of anyone **who has caused the loss intentionally or fraudulently.***

- . Fraudulent loss is an important issue in non-life insurance (property, liability)
AI tools might help to detect frauds again by browsing the information available

- . Smart contracts: the declaration of loss and the cover of the loss might be automated for simple cases
 - . delays in travel insurance
 - . connected objects might send information linked to a benefit: e.g. courtesy car during repair
 - . Health Insurance

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New business models

Car-insurance and autonomous vehicles:

- The existing model links property of the car and liability insurance
- If the driver disappears:
 - insurance is maintained to the owner: but the damages are due to the defect of the car (the final cost is on the side of the car-AI provider),
 - or/
 - insurance is endorsed by the car-AI provider: then is even Insurance coverage necessary? It could be valuable to create a captive insurer for the car-AI provider.

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New business models

Could a Gafam become an insurer ?

- There always been the question of prior authorization or licensing (e.g. Lux Law 2015)

Decentralized Autonomous Organizations (blockchain) + AI=

- information, reliable data storage and lowering the management costs, could ease the entrance of new actors, the only requirement will be the solvability back-up

Thank you for your attention

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