AI in patent law as reflected in German and European case law

Prof. Dr. Maximilian Haedicke

Judge at the CD Paris of the Unified Patent Court (UPC)

Professor at the University of Freiburg (Intellectual Property Law)

Agenda

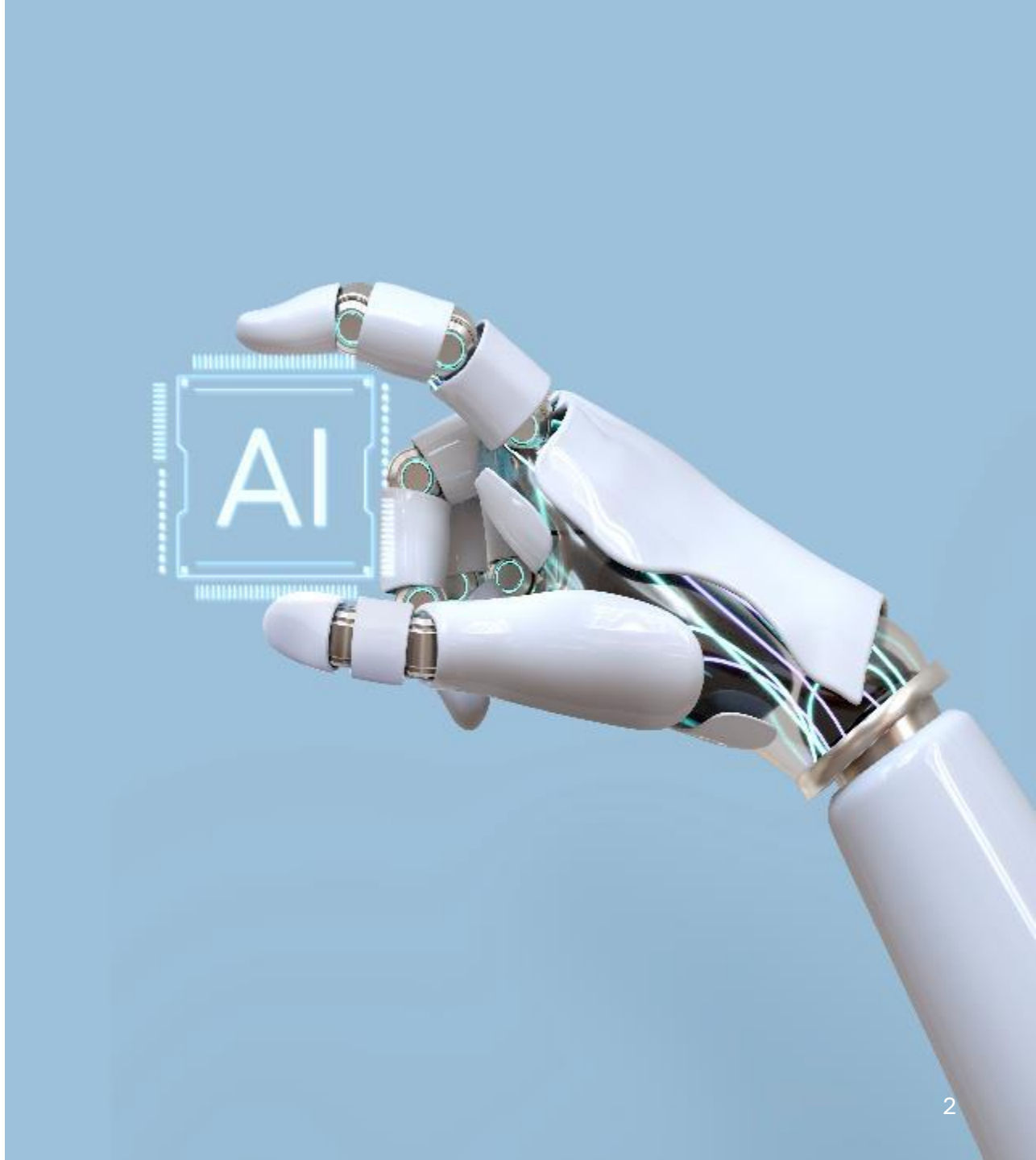
Introduction

Decisions by the European Patent Office

Decisions by the German Federal Court of Justice and German Federal Patent Court

Synthesis of Decisions

Perspectives and Future Obstacles



Introduction

→ doctrinal tension between rapidly advancing autonomous technologies and a patent system traditionally based on human creativity, legal responsibility, and personal attribution

Two Distinct Issues

PATENTABILITY OF AI-RELATED INVENTIONS

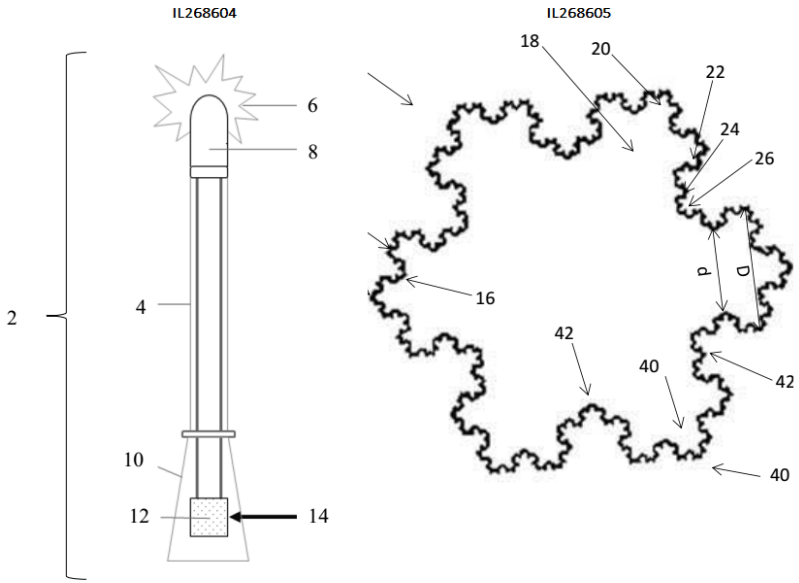
- traditional requirement of a technical contribution
- differentiation between technical character and abstract information processing
- explainability of AI systems

  → complication of the assessment of inventive step and the sufficiency of disclosure
- risk of over- or underprotection

AI AS INVENTOR

- legal definition of the inventor
- attribution of creativity and intellectual contribution
- responsibility and accountability
- risk of legal fiction and misattribution
- systemic coherence of patent law

A food or beverage (10) container comprising:
a generally cylindrical wall (12) defining an internal chamber of the container, the wall having interior (16) and exterior (14) surfaces and being of uniform thickness; [...]



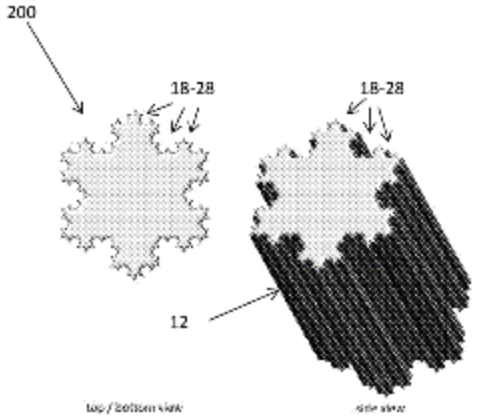
A device (2) for attracting enhanced attention, the device comprising:
(a) an input signal of a lacunar pulse train having characteristics of a pulse frequency of approximately four Hertz [...]
(b) at least one controllable light source

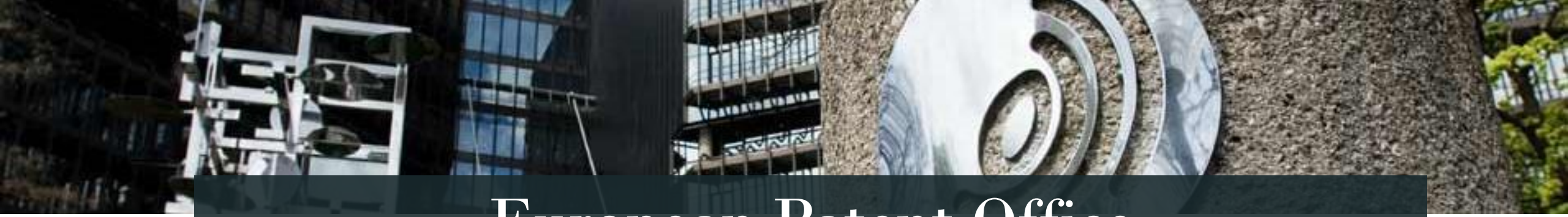
Notice:

All of the following **decisions are based on the same two patent applications** by Stephen Thaler allegedly invented by the AI-system **DABUS:**

1. concerning a **food container** constructed using fractal geometry, which enables rapid reheating;

2. regarding a **flashing beacon** for attracting attention in an emergency.





European Patent Office

DECISIONS

- EPO J 8/20 - GRUR-RS 2021, 54931

  Food Container

- EPO J 9/20 - GRUR-RS 2021, 55794

  Devices and methods for attracting enhanced attention

KEY ASPECTS

- The **applicant must name human inventors** so that a patent application that names AI as the inventor cannot currently be successful.
- Since the right to the patent fundamentally belongs to the inventor and should be transferable to a legal successor, **only a person with the appropriate legal capacity can be considered as the inventor**.
- Since the right to the patent cannot arise in the case of the AI designated as the inventor, a derivative acquisition of rights by the owner of the AI is also ruled out. However, **the user or owner of the AI can be named as the inventor**.

German Federal Court of Justice / German Federal Patent Court (I)

DECISIONS

- BGH X ZB 5/22 - GRUR 2024, 1315

  DABUS - Device autonomously bootstrapping uniform sensibility

- BPatG 18 W (pat) 28/20 - GRUR-RS 2023, 47656

  DABUS

- BPatG 11 W (pat) 5/21 - GRUR 2022, 1213

  Food Container

KEY ASPECTS

- **Only a natural person can be an inventor** within the meaning of Section 37(1) PatG. The status of inventor confers the right to the invention, which presupposes that the inventor can be the holder of such a right.
- Even a significant contribution by AI to the invention does not contradict the assumption that **at least one natural person should be regarded as the inventor on the basis of their contribution**.
- However, **it is permissible to add,** in addition to naming a natural person as the inventor, **that the natural person utilized an AI to generate the invention**.

German Federal Court of Justice / German Federal Patent Court (II)

DECISIONS

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  DABUS

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KEY ASPECTS

- The applicant should not be regarded as inventor merely because they owned or controlled the AI. **Ownership of a tool does not automatically substitute for personal inventorship**.
- If a human being contributes to the invention through a creative achievement, they are to be qualified as a (co-)inventor and owner of the right to the patent.
- You can get a patent for an AI-generated invention. AI-generated inventions are patent eligible!

German Federal Court of Justice / German Federal Patent Court (III)

DECISIONS

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  DABUS

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TAKE-HOME POINTS

- **You can get a patent for an AI-generated invention. AI-generated inventions are patent eligible!**
- **You have to name a human inventor**
- **The human contribution need not be a creative contributionto the invention itself. A significant contribution to the generation of the invention is enough to qualify as inventor.**
- **Skilled Prompting may suffice!**

Synthesis

- AI-assisted inventions are not excluded from patent protection

  → assessment under established criteria of technical character, novelty, and inventive step

- inventorship is firmly tied to legal personality, accountability, and attribution - qualities that AI systems do not possess and cannot fulfill
- recent jurisprudence allows acknowledgment of AI involvement in the inventive process without granting AI legal recognition as an inventor

Reception

→ generally, there is a broad acceptance within academic circles, appreciating the dogmatic consistency, international uniformity and practicability of the approach; however, the **main points of criticism** are:

LACK OF FUTURE PERSPECTIVE

Analysis based on the current state of AI does not take into account that future AI systems possibly operating completely autonomously might exist in the future

FORMALISTIC APPROACH

Contradiction with material reality due to the formalistic approach (designation of a person as an inventor even if they claim not to be one)

RISK OF PROTECTION GAPS

If AI does invent autonomously, there is no human inventor, meaning that patent protection would not be possible

PERSPECTIVE

In the Future, when inventions are created completely by AI and without any influence of human beings, who should be named the inventor?

Perspective – Potential Inventors

1

AI

The AI system itself is named as inventor and possibly recognized as a limited legal subject.

2

Developer/Owner/Operator

A human connected to the AI is named as inventor, even though the AI generated the invention autonomously.

3

Seperated Attribution

AI is formally named as inventor, but patent rights vest automatically in a human or legal entity, such as its owner or developer.

4

***sui generis* IP Right**

Creation of a new, separate IP right specifically for AI-generated inventions, that is distinct from patents.

5

No Patent Protection

If an invention is generated entirely by AI without any human inventive contribution, no inventor can be named, and the invention is therefore not patentable.

Thank you!

Prof. Dr. Maximilian Haedicke

haedicke@jura.uni-freiburg.de

www.unifiedpatentcourt.org