

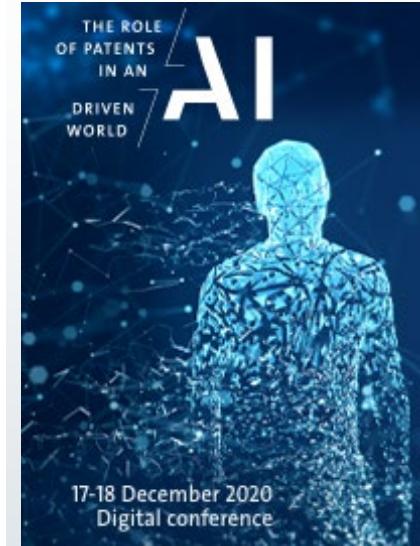
Legal aspects of patenting AI

Patentability and inventorship



What is AI?

- AI is a broad **subfield of computer science** that covers many different computational models for solving data analysis problems
- AI is empowered by software algorithms that are capable of reproducing aspects of human intelligence via respective training or rule setting
 - This enables AI to solve technical tasks in a flexible manner
- Inventions related to AI and ML fall under the definition of computer implemented inventions (CII)
 - **They are patentable if the general patentability criteria are met**



Patentability requirements

Art. 52 (1)
EPC

- Inventions in all fields of technology
- New
- Inventive

Art. 52 (2)
and (3)
EPC

- **Mathematical methods**, schemes, rules and methods for performing mental acts etc. and **programs for computer** are not regarded as inventions
- if claimed **as such** in the application

Art. 54, 56
EPC

- All features contributing to the technical character are taken into account for assessment of inventive step of an invention in the field of CII and AI

G1/19

Patentability of CII and AI

Disclosure of the invention – Art. 83 EPC

- The description must **disclose any feature essential** for carrying out the invention in sufficient detail to render it apparent to the skilled person how to put the invention into practice (T 2574/16, T 161/18)
- Depending on the claimed AI-related invention this could require disclosure of underlying algorithms and/or corresponding training steps

The person skilled in the art

- Has means and capacity **for routine work and experimentation**
- Evaluation of complex mixed-type inventions may require **expertise in multiple fields**
 - Can be a team
 - e.g. a machine learning specialist and an aerospace engineer working in applied AI fields
- Examining and opposition divisions are composed of experts from various technical fields

T 641/00 (COMVIK)

G-VII, 5.4

Guidelines for Examination and/AI CII

- Index of sections with date of update

<https://www.epo.org/law-practice/legal-texts/html/guidelines/e/j.htm>

The screenshot shows the EPO's 'Guidelines for Examination' page. A red arrow points from the left margin to the 'Index for Computer-Implemented Inventions' link in the 'Table of Contents - Guidelines for Examination' sidebar.

Features related to the list of Art. 52(2) and technical contribution

G.II, 3.3 Mathematical methods (updated in GL 2021)

- **G.II, 3.3.1 Artificial intelligence and machine learning (introduced in GL 2018)**
- **G.II, 3.3.2 Simulation, design or modelling (introduced in GL 2018)**

G.II, 3.4 Aesthetic creations

G.II, 3.5 Schemes, rules and methods for performing mental acts, playing games or doing business

- **G.II, 3.5.1 Schemes, rules and methods for performing mental acts (introduced in GL 2018)**
- **G.II, 3.5.2 Schemes, rules and methods for playing games (introduced in GL 2018)**
- **G.II, 3.5.3 Schemes, rules and methods for doing business (introduced in GL 2018)**

G.II, 3.6 Programs for computers (updated in GL 2018)

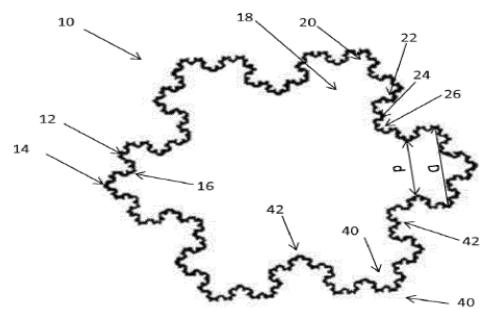
- **G.II, 3.6.1 Examples of further technical effects (introduced in GL 2018)**
- **G.II, 3.6.2 Information modelling, activity of programming and programming languages (introduced in GL 2018)**
- **G.II, 3.6.3 Data retrieval, formats and structures (updated in GL 2021)**
- **G.II, 3.6.4 Database management systems and information retrieval (introduced in GL 2021)**

G.II, 3.7 Presentations of information (updated in GL 2018)

"DABUS applications"

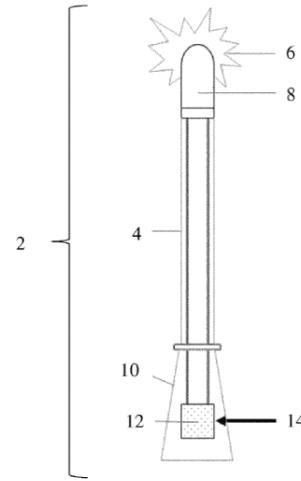
18 275 163.6

FOOD CONTAINER



18 275 174.3

DEVICES AND METHODS FOR ATTRACTING ENHANCED ATTENTION



Refusal of the "DABUS applications"

- The EPO refused applications designating an AI system as inventor
 - "Inventor" refers to a natural person only
 - AI systems have no legal personality
 - Owner of an AI system cannot be its successor in title
 - Designation of inventor is a formal requirement, independent from the substantive patentability requirements
- On 21 December 2021 the Legal Board of Appeal confirmed (J 8/20, J9/20) the decision taken by the EPO and stated that an inventor needs human quality under Article 60 EPC.



Thank you for your attention

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