



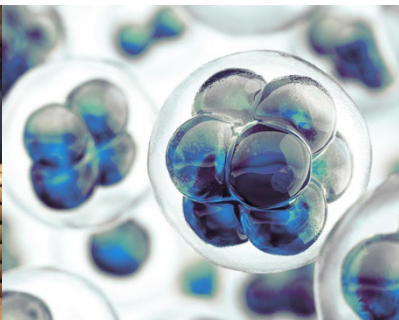
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Legal aspects of patenting AI

Patentability and inventorship



Heli Pihlajamaa



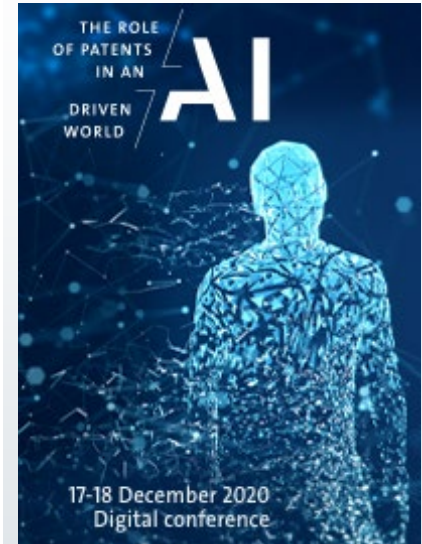
Patent Law | European Patent Office



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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

Patentability of CII and AI

G1/19

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>

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Index for Computer-Implemented Inventions

A computer-implemented invention (CII) is one which involves the use of a computer, computer network or other programmable apparatus, where one or more features are realised wholly or partly by means of a computer program.

The following collection of hyperlinks is provided in order to facilitate access to the sections of the Guidelines for Examination in the EPO which give instructions particularly useful for the search and examination of CII's.

It is noted that this collection is not a separate publication about CII's. Instead, following a hyperlink will lead to the section of the most recent and applicable version of the Guidelines which has the stated number and title.

The collection of sections essentially comprises the teaching about assessing patentability requirements, in particular in case of claims comprising a mix of technical and non-technical features, which are common in CII. Sections providing teaching about how to evaluate features related to the list of **Article 52(2)** are included as well as sections describing the search practice and requirements of **Article 83** and **84**.

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)

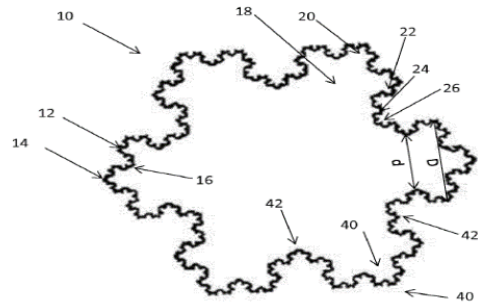
- **G-II.3.6.1** Examples of further technical effects (introduced in GL 2018)
- **G-II.3.6.2** Information modelling, activity of programming and programming languages (introduced in GL 2018)
- **G-II.3.6.3** Data retrieval, formats and structures (updated in GL 2021)
- **G-II.3.6.4** Database management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

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

"DABUS applications"

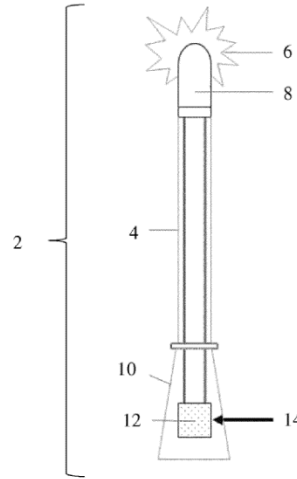
18 275 163.6

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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