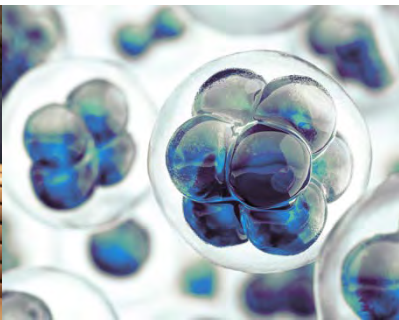




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International Symposium on Patent Examination Practises on AI-related Inventions

EPO practises on inventive step and description requirements



Examination of AI-related inventions at EPO

Exclusion

- Computational models and algorithms in AI are *per se* of abstract nature
- Excluded when claimed *as such*
- Solution: technical means
- Claim forms for computer-implemented inventions (CII) in GL F-IV, 3.9

Novelty and inventive step

- **All features contributing to the technical character taken into account for assessment of inventive step (T 641/00; GL G-VII, 5.4)**

Patentability of AI

“Estimation system of hydroelectric generating capacity”

- Subject-matter of **claim 1** not excluded from patentability
 - “*further technical effect*” is provided
- Identification of distinguishing feature, here: “**neural network**”
 - technical vs. non-technical feature(s)
- Apply the “Problem-Solution Approach”; see GL G-VII, 5.4
- Here: replacing the “regression equation model” of the prior art with a “**neural network**” is obvious → **Lack of inventive step**

“Estimation system of hydroelectric generating capacity”

- **Claim 2** introduces “**temperature of the upper stream**”, during a certain time period as additional input parameter
– additional distinguishing feature
- Apply the “Problem-Solution-Approach”
- Would the person skilled in the art of hydroelectric power generation find it obvious to take this parameter into consideration?
- Lack of inventive step (?)

Disclosure of the Invention – Art. 83 EPC

- An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a skilled person
- 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
 - depending on the claimed AI-related invention, this could require disclosure of underlying algorithms and/or corresponding training steps

Additional Remarks

- Patentable subject-matter in AI can typically be found in:
 - new technical implementations
 - new technical applications
- Normally, training data does *not* need to be disclosed to fulfil the requirements for sufficiency of disclosure



Thank you for your attention!

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