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# Software patents at the EPO: The current practice

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#### THE LEGAL BASIS (don't try to unch

#### EIL LES PATENTRECHT

#### arkeit

#### 38, 39 bare Erfindungen

opäische Patente werden für Erfindunallen Gebieten der Technik erteilt, e neu sind, auf einer erfinderischen Täeruhen und gewerblich anwendbar sind.

s Erfindungen im Sinne des Absatzes 1 n insbesondere nicht angesehen:

Entdeckungen, wissenschaftliche Theorien nathematische Methoden;

ästhetische Formschöpfungen;

Pläne, Regeln und Verfahren für gedankli-Tätigkeiten, für Spiele oder für geschäftli-Tätigkeiten sowie Programme für Datenarbeitungsanlagen;

die Wiedergabe von Informationen.

) Absatz 2 steht der Patentierbarkeit der ort genannten Gegenstände oder Tätigkeiten ur insoweit entgegen, als sich die europäische atentanmeldung oder das europäische Patent auf diese Gegenstände oder Tätigkeiten als

#### PARTI SUBSTANTIVE PATENT LAW

Chapter I Patentability

(a)

(d)

#### Article 5238, 39 Patentable inventions

European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

discoveries, scientific theories and mathematical methods;

aesthetic creations; (b)

schemes, rules and methods for perfe ing mental acts, playing games or doing pusiness, and programs for computers;

presentations of information.

Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates such subject-matter or activities as such.

#### nventions" that "technical"

#### re = non-invention ...

his

#### only excluded "as such"

### THE FRAMEWORK DEVELOPED BY THE EPO BOARDS OF APPEAL

#### 1. Coherent methodology

for assessing the patentability of computerimplemented inventions

#### 2. Case law

concering individual aspects to stake out the grey area of technicality

## **1. METHODOLOGY**

Two hurdles for patentability:

- **#1 Is there an invention?** "patent-eligibility"
- **#2 Does it have the required qualities?** novelty, inventive step ("non-obviousness")

**Independent hurdles!** (somewhat different to some recent US decisions)

### 1. METHODOLOGY HURDLE #1: PATENT-ELIGIBILITY

YES, if the claimed subject-matter <u>uses</u> <u>technical means</u> (e.g. a computer)

- The technical means can be trivial
- No weighing up of technical and nontechnical features (i.e. no "core theory")
- Very low hurdle
- Landmark decision: T 0258/03 (Auction method/HITACHI) of 21 April 2004

### 1. METHODOLOGY HURDLE #2: INVENTIVE STEP

YES, if the technical features are non-obvious

- Only technical aspects count!
- The non-technical features are ignored in the assessment of inventive step
- This is the real challenging test
- Landmark decision: T 0641/00 (Two identities/COMVIK) of 26 September 2002

## **1. METHODOLOGY**

#### SUMMARY:

- Patent-eligibility is no issue at all
- The challenging test is inventive step, where only the technical features count

→ European patents only for <u>non-obvious technical contributions</u>!

## 2. CASE LAW

#### **Example: Industry 4.0 and IoT inventions**

- (Software) features relating to the control of a technical process / device are regularly considered technical
- More critical: New business models based on big data analytics
  - May yield interesting insights, but does not necessarily control the machine...

## 2. CASE LAW

#### **Example: Artificial intelligence**

A computer-implemented method, comprising:

using a novel and non-obvious neural network to process generic data.

- →Patent-eligible ("computer-implemented")
- →But not patentable, since this is pure math / data processing (does not count towards inventive step)

## 2. CASE LAW

#### **Example: Artificial intelligence**

A computer-implemented method, comprising:

using a novel and non-obvious neural network to optimize the shape of a wing in terms of its drag.

→Patentable, since the math is <u>limited to a</u> <u>technical purpose</u>

→Breakthrough mathematical (AI) concepts are not patentable, but the technical applications are!

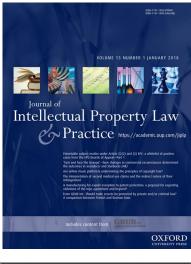
## **RECOMMENDED READING**

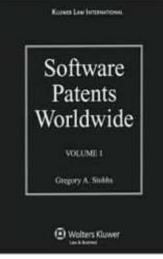
"Patentable subject matter under Article 52(2) and (3) EPC: **a whitelist of positive cases** from the EPO Boards of Appeal" (Stefan V. Steinbrener)

#### "Software Patents Worldwide"

EPC chapter (Stefan V. Steinbrener)

Germany chapter (Hans Wegner, Bastian Best)





### BONUS TIP #1: ALLOWABLE CLAIM CATEGORIES

- 1. "Device/apparatus, comprising …"
- 2. "Computer-implemented method, comprising ..."
- 3. "Computer program comprising instructions for implementing the method of claim 2."
  - Only if it has a "further technical effect"
  - No need to claim a "non-transitory computerreadable medium"!

### BONUS TIP #2: CLAIMS FOR NETWORKED SYSTEMS

- Contributory infringement is no fun in Europe
- Draft a separate independent claim for each entity: transmitter→intermediary→receiver

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#### Thank you for your attention.