

Comparative patent eligibility – EPO vs. USPTO



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EPO patent eligibility

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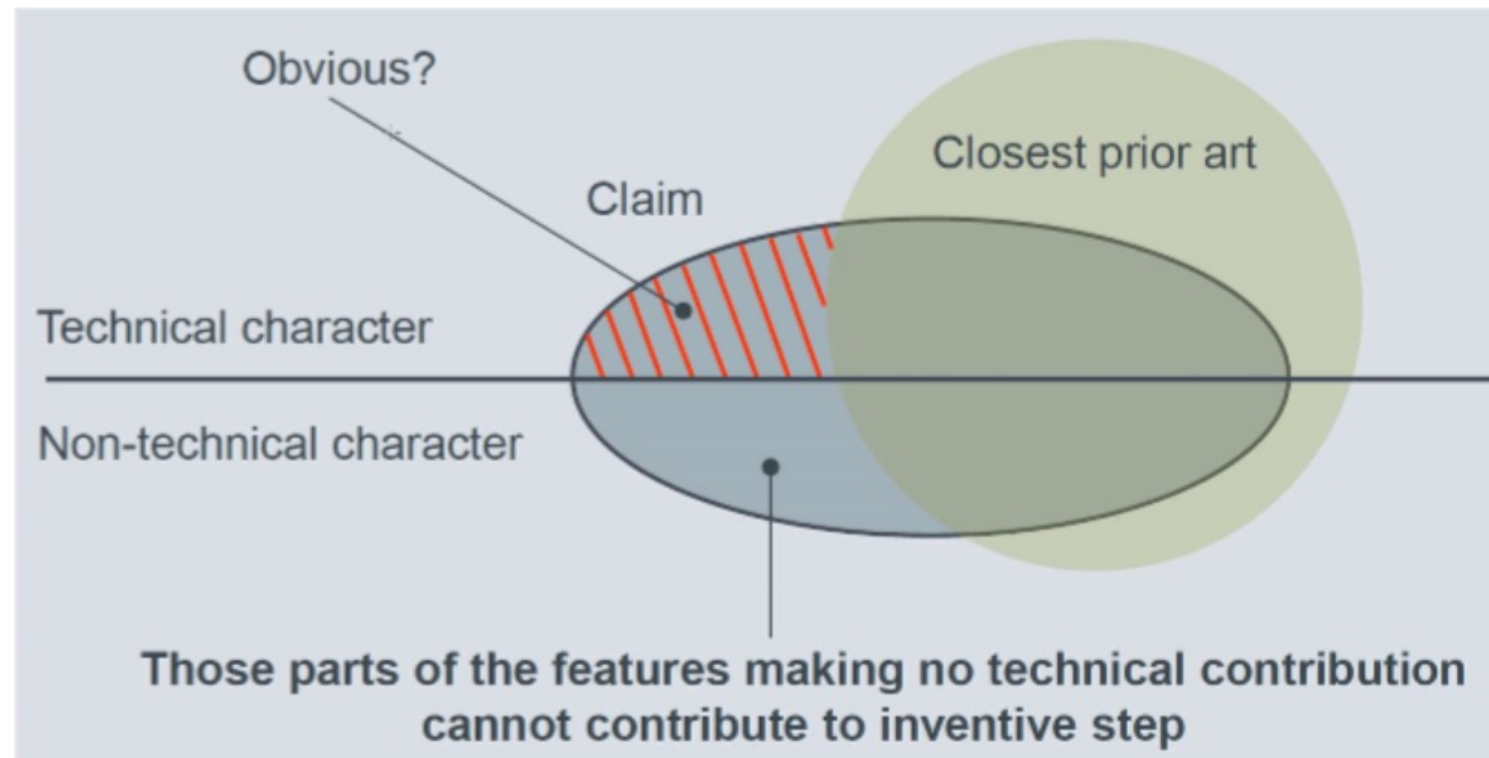
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EPO patent eligibility

- The EPC lists certain exclusions from patentability
 - e.g. *business methods, mathematical methods, mental acts, computer programs*
- Case law has broadened this out to refer to subject matter as “technical” or “non-technical”
 - “Technical” is an undefined term.
 - Not always intuitive, e.g. how the application of AI in a business application is treated
 - Strong relationship with Inventive Step
 - Is a largely settled area of law in Europe → European patent attorneys can accurately forecast EPO opinion before filing
- What does it mean to be “technical”?
 - **Technical**: related to internal functioning of the computer itself, improved scalability, reduced memory usage, reduced network traffic, improve processing speed, etc.
 - **Not technical**: improving sales, administration, better targeted adverts, more relevant search results, etc.

EPO inventive step

For claims which contain both technical and non-technical features:



Clarity: EPO vs. USPTO

- Probably the main issue I face when prosecuting traditional US-drafted applications
- At the EPO, the claimed features must be clear in isolation – i.e. based on the claim wording alone and what the skilled person would understand the wording to mean
- Cannot simply point to the description to justify the meaning of a term
- It's essential to bear this in mind when drafting specifications that might end up in front of the EPO, particularly considering the strict added matter rules

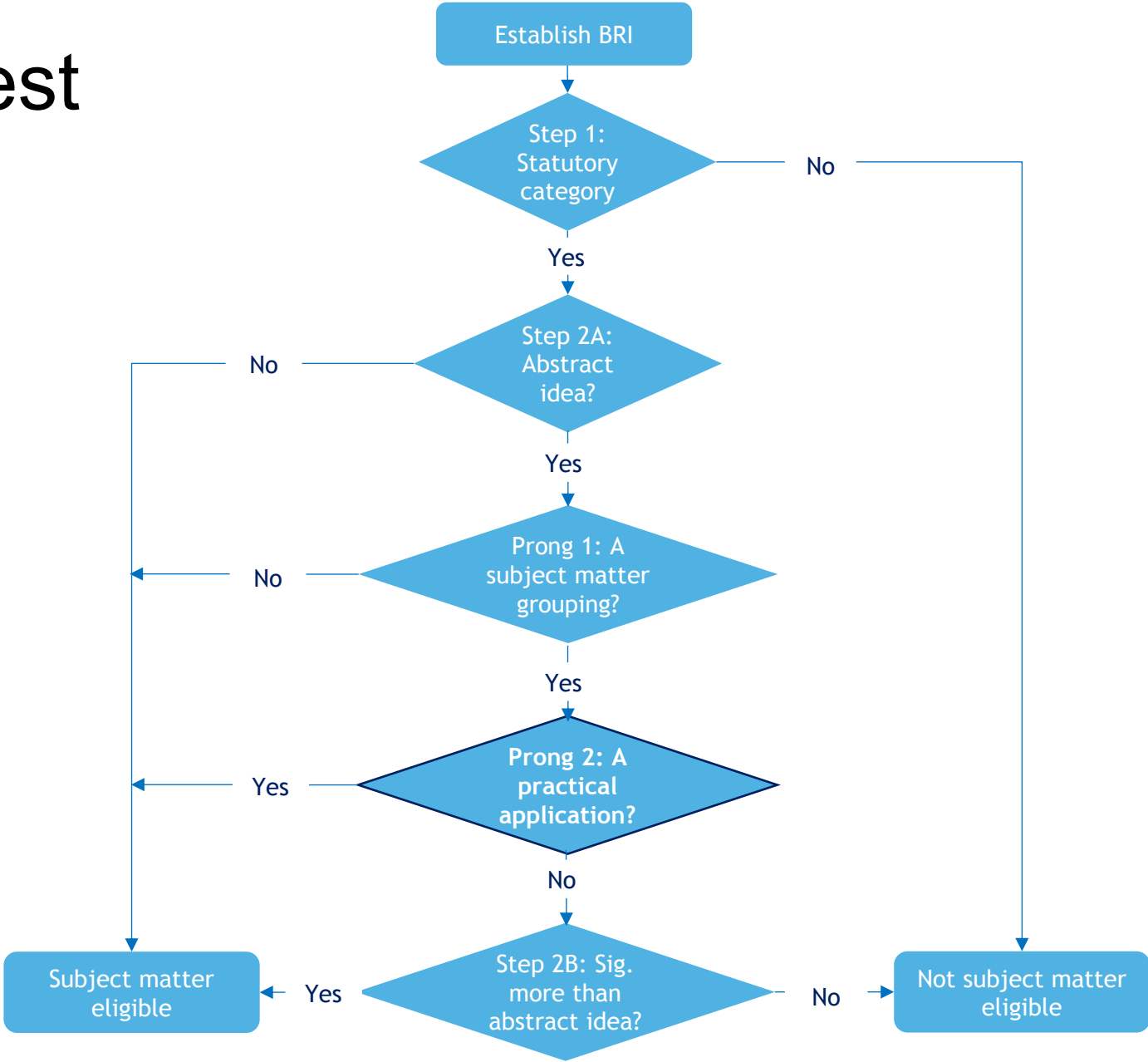
Introduction to USPTO Subject Matter Eligibility Examination Guidelines

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USPTO Alice 2 Step Test (Simplified) Flowchart



USPTO Alice Step 2A, Prong 2: “Integrated Into a Practical Application” Examples



Reducing latency in a computer process



Improving the speed of a search for data



Reducing the amount of storage needed for storing data



Leveraging cost effective elements in lieu of more expensive elements



Improving the security of a process or system



Improving the efficiency of a process or system

USPTO Provided Examples of Abstract Ideas

Index of Subject Matter Eligibility Examples

Abstract Idea Examples	Digital Image Processing (RCT)	Global Positioning System	Digital Image Processing (Digittech)	Game of Bingo	E-Commerce transactions	Distribution of Products over the Internet	Transmission of Stock Quote Alerts	GUI for Meal Planning	GUI for Relocating Obscured Text	Updating Alarm Limits	Rubber Manufacturing	Diagnosing and Treating Jolitis	Screening of Gene Alterations	Filtering Internet Content	ATM Transactions	Tracking Inventory	Relocation of Icons on GUI	Network Traffic Monitoring	Cryptographic Communications	Medical Record Updates	Treating Kidney Disease	Controller for Injection Mold	Livestock Management
Example Number	3	4	5	6	7	8	21	22	23	24	25	29	31	34	35	36	37	40	41	42	43	45	46
Mathematical Concepts																							
Mathematical relationships	•		•								•											•	
Mathematical formulas or equations										•	•								•				
Mathematical calculations		•						•	•	•											•	•	
Mental Process																							
Concepts performed in the human mind				•			•	•			•	•	•		•	•	•	•			•	•	•
Certain Methods of Organizing Human Activity																							
Fundamental economic principles or practices															•	•							
Commercial or legal interactions					•	•																	
Managing personal behavior or relationships or interactions between people				•										•						•			

Practice Tips For Overcoming Subject Matter Challenges at the USPTO

Filing

- Threshold question: Can the invention be framed as a technical solution to a technical problem?

Drafting

- Describe, in the specification, how the invention is a technical solution to a technical problem.
- Describe the invention at different levels of specificity.
- Don't shy away from describing specific use cases.

Prosecution

- Interview the Examiner after receiving each Office Action.
- During the interview(s), refer the Examiner to helpful sections of the specification.
- Liken the claims to those deemed eligible among the 46 Examples.

USPTO Subject Matter Eligibility - Examples

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U.S. – Subject Matter Eligibility

Has § 101 jurisprudence actually stabilized? See the Work-in-Progress manuscript by Nikola Datzov and Jason Rantanen titled “Predictable Unpredictability.”

If you are a patent litigator looking at Federal Circuit opinions, it is possible that there is some stability.

But for patent prosecutors, ...

And what about appeals from the Examiner to the Board?

U.S. – Subject Matter Eligibility

SYSTEMS AND METHODS FOR FACILITATING PATIENT SELF-SELECTION (U.S. Patent No. 10,325,678)

Claims directed to a method of lowering cholesterol with over the counter statin:

- Subject is asked sex, age, total cholesterol level, pregnant, *etc.*, in a survey
- Survey results run against a first set of filters
- The subject is not authorized if subject fails any filter in the first set of filters (*e.g.*, pregnancy)
- Survey results run against a second set of filters
- If subject fails any filter in the second set (*e.g.*, total cholesterol), the subject is authorized, provided that they acknowledge that they have discussed the risk factor with their physician
- Electronic fulfillment process proceeds if the first and second set of filters are satisfied

U.S. – Subject Matter Eligibility

SYSTEMS AND METHODS FOR FACILITATING PATIENT SELF-SELECTION

(U.S. Patent No. 10,325,678)

May 30, 2018 Office Action - claims rejected under § 101:

Are the claims directed to a judicial exception?

- Yes. The claims are directed to obtaining an information set from a human, and running the information set against a plurality of filters. The identified abstract idea is analogized to collecting information, analyzing it, and displaying certain results.

Has the judicial exception been integrated into a practical application?

- No. The additional verbiage and limitations recited in the claims all describe the abstract idea or do not amount to significantly more.

Do the claims as a whole recite additional limitations such that the claims amount to significantly more than the abstract idea?

- No. Essentially, the Applicant is attempting to claim the mental process a physician would perform when deciding whether a statin should be provided to a patient.

U.S. – Subject Matter Eligibility

SYSTEMS AND METHODS FOR FACILITATING PATIENT SELF-SELECTION

(U.S. Patent No. 10,325,678)

Applicant's November 30, 2018 Reply to the May 30, 2018 Office Action

- Amended the claims to require “administering, upon authorization of the provision (of the statin).”

February 6, 2019 Notice of Allowance

- With respect to 35 U.S.C. §101 “The claims recite a method for lowering cholesterol in a human with an over the counter drug by comparing patient survey information to statin safety information and obtaining confirmation of receiving and reading drug information and subsequently administering the statin pharmaceutical composition to a human.”
- Therefore, the judicial exception has been integrated into a practical application. The claims include an additional element that applies or uses a judicial exception to effect a particular treatment and so the claims are not “directed to” the judicial exception.

U.S. – Subject Matter Eligibility

SYSTEMS AND METHODS FOR FACILITATING PATIENT SELF-SELECTION

(U.S. Patent No. 10,325,678)

1. A method of managing cholesterol in a human subject . . . comprising:

a) receiving a request from the subject for the statin pharmaceutical composition, at a computer system . . .

b) providing a survey for obtaining a plurality of survey results from the subject . . .

c) receiving the plurality of survey results . . .

d) applying an algorithm to the plurality of survey results. . . wherein the algorithm:

i) runs all or a portion of the plurality of survey results against a plurality of filters, wherein, when a respective filter in the plurality of filters is fired, the process is terminated or the subject is provided with a warning corresponding to the respective filter, and wherein the plurality of filters comprises . . .

ii) obtains, when the process is not terminated, acknowledgment from the subject for each warning issued to the subject by any filter in the plurality of filters, and

iii) proceeds with the process when (1) the process is not already terminated by the firing of a filter in the plurality of filters and (2) the subject has acknowledged each warning associated with each filter in the plurality of filters that was fired and that is associated with a warning, wherein the process further comprises:

storing an indication in a subject profile of a re-order for the composition,

communicating an over the counter (OTC) drug facts label for the composition to the subject, and

authorizing, upon confirmation from the subject that the OTC drug facts label has been received and read, a provision of the composition to the subject; and

e) administering the composition to the human subject, upon authorization of the provision, to manage cholesterol in the human subject.

U.S. – Subject Matter Eligibility

Systems and Methods for Applying a Convolutional Neural Network to Spatial Data (U.S. Patent No. 11,080,570)

1. A method for characterization of a test object comprising:
 - (A) obtaining spatial coordinates for a target object;
 - (B) modeling the test object with the target object in each pose of a plurality of different poses, thereby creating a plurality of voxel maps, each respective voxel map comprising the test object in a respective pose in the plurality of different poses;
 - (C) inputting each respective voxel map into a convolutional neural network;
 - (D) obtaining a plurality of scores from the convolutional neural network, each score corresponding to the input of a voxel map into the convolutional neural network; and
 - (E) using the plurality of scores to characterize the test object.

U.S. – Subject Matter Eligibility

MPEP 2106.04(a)(2) – “Groupings”

The enumerated groupings of abstract ideas are defined as:

- 1) Mathematical concepts – mathematical relationships, mathematical formulas or equations, mathematical calculations (see [MPEP § 2106.04\(a\)\(2\)](#), subsection I);
- 2) Certain methods of organizing human activity – fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions) (see [MPEP § 2106.04\(a\)\(2\)](#), subsection II); and
- 3) Mental processes – concepts performed in the human mind (including an observation, evaluation, judgment, opinion) (see [MPEP § 2106.04\(a\)\(2\)](#), subsection III).

U.S. – Subject Matter Eligibility

Summary

- Conduct Examiner interviews! Find out what is important to the assigned examiner.
- When arguing that the claim elements integrate an abstract idea into a practical application, emphasize some novel change to the environment that arises due to the combination.
- Make as many claim elements as possible incapable of being mentally performed. The more claim elements that are incapable of being mentally performed, the easier it is to argue that the abstract idea has been integrated into a practical application.
- Provide the basis in the specification for why the claim elements cannot be mentally performed, and point out why they are novel, non-obvious, and integrated into a practical application.
- Consider addressing a § 101 under *Vanda* by treating a subject with a drug.
- After you overcome a § 101 rejection, file a continuation to get better claims.

Questions?

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