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Legal Update

IP Legal Updates for the Busy Professional

Navigating the USPTO Subject Matter Eligibility Guidance For Computer-related Inventions

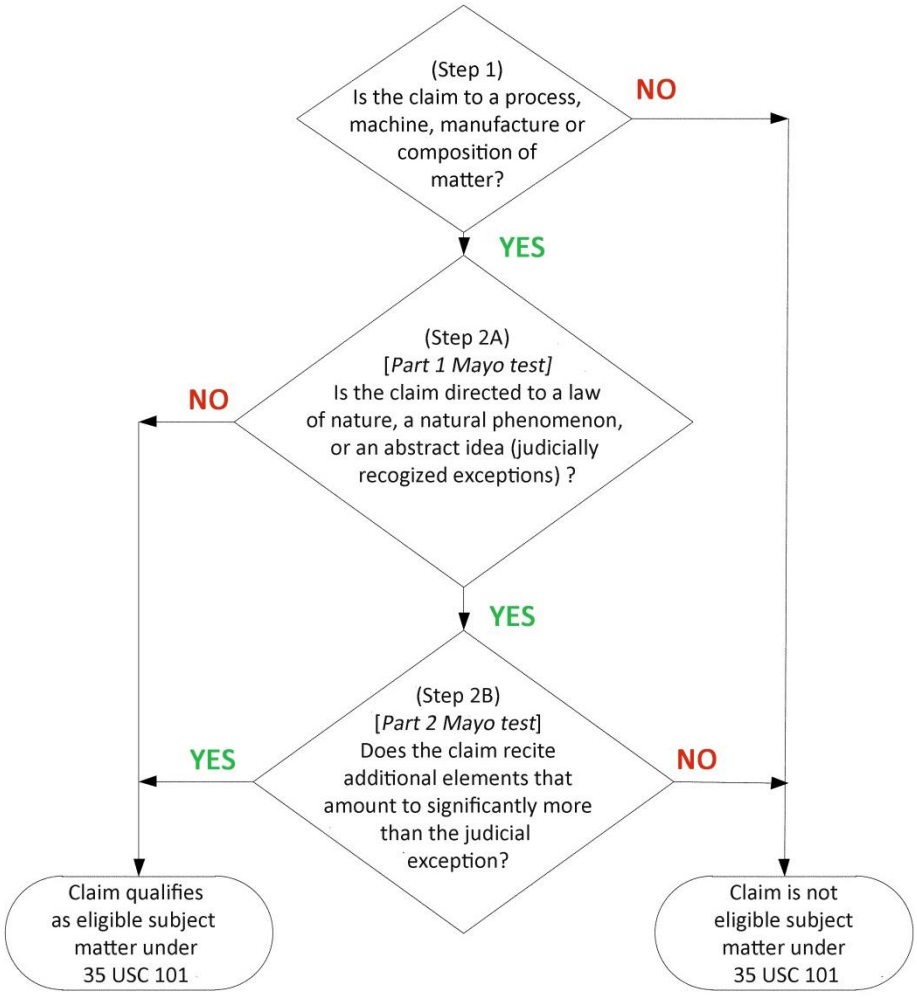
By Donald J. Daley

On 16 December 2014, the USPTO issued revised subject matter eligibility Guidance. On 27 January 2015, the USPTO issued "abstract idea" computer-related invention examples of eligible and ineligible claims.

The following chart identifies the two part Mayo test for obtaining subject matter eligible computer-related inventions.

Subject Matter Eligibility Test for Products and Processes

Prior to evaluating a claim for patentability, establish the broadest reasonable interpretation of the claim. Analyze the claim as a whole when evaluating for patentability.



In accordance with compact prosecution, along with determining eligibility, all claims are to be fully examined under each of the other patentability requirements: 35 USC §§ 102, 103, 112, and 101 (Utility, Inventorship, Double Patenting) and non-statutory double patenting.

STEP 2A (Part 1 of Mayo Test) – Is the claim directed to an abstract idea? **If not, then patent eligible!**

A. Abstract ideas identified in *Alice Corp.*[i]:

- Fundamental economic practices (long time and prevalent).
- Certain methods of organizing human activities.
- An idea 'of itself.'
- Mathematical relationships/formulas.

B. USPTO-provided examples of abstract ideas from case law:

- Mitigating settlement risk (*Alice Corp.*).
- Hedging (*Bilski*[ii]).
- Creating a contractual relationship (*buySAFE*[iii]).
- Using advertising as an exchange or currency (*Ultramercial*[iv]) - The addition of limitations that narrow the idea further describe the abstract idea, but do not make it less abstract.
- Processing information through a clearinghouse (*Dealertrack*[v]).
- Comparing new and stored information and using rules to identify options (*SmartGene*[vi]).
- Using categories to organize, store and transmit information (*Cyberfone*[vii]).
- Organizing information through mathematical correlations (*Digitech*[viii]).
- Managing a game of bingo (*Planet Bingo*[ix]).
- The Arrhenius equation for calculating the cure time of rubber (*Diehr*[x]).
- A formula for updating alarm limits (*Flook*[xi]).
- A mathematical formula relating to standing wave phenomena (*Mackay Radio*[xii]).
- A mathematical procedure for converting forms of numerical representation (*Benson*[xiii]).

C. USPTO proposes a *Streamlined Eligibility Analysis:*

- For purposes of efficiency in examination, a streamlined eligibility analysis can be used for a claim that may or may not recite a judicial exception but, when viewed as a whole, clearly does not seek to tie up any judicial exception such that others cannot practice it.

- Examples:
  1. A complex manufactured industrial product or process that recites meaningful limitations along with a judicial exception.
  2. A robotic assembly having a control system that operates using certain mathematical relationships is clearly not an attempt to tie up use of the mathematical relationships.
  3. A claim reciting a nature-based product while not attempting to tie up the nature-based product, e.g. an artificial hip prosthesis coated with a naturally occurring mineral.
  4. A claimed product that merely includes ancillary nature-based components, e.g. cellphone with an electrical contact made of gold or a plastic chair with wood trim.

D. Challenge what Examiner asserts is an abstract idea: Application is presumed patent eligible and Examiner bears the initial burden of establishing a *prima facie* case of patent ineligibility. Therefore:

- Argue the Examiner hasn't alleged what the abstract idea is in the claim.
- Argue claim is not directed to abstract idea if prior art shows "other ways" of performing idea.
- Use *DDR Holdings*[xiv] – A business challenge particular to Internet and rooted in computer technology is not an abstract idea.
- For business methods, argue that *Alice Corp.* requires that to be a fundamental economic practice, a method must have 1) been around for a long time; and 2) must be prevalent.

Step 2B (Part 2 of Mayo Test) – Does the claim recite additional elements that amount to significantly more than the abstract idea? **If yes, then patent eligible!**

Guidance Provides Examples of Significantly More:

A. Use safe harbors set forth in *Alice Corp.*: Additional elements amount to significantly more than the abstract idea if they:

- Improve functioning of computer itself – less memory, faster processing/computing time, etc.
- Improve another technology/tech field – e.g. image processing, GPS, etc.

B. Inextricably tie to computer technology: e.g. isolating a received electronic communication in a quarantine sector of the computer memory and extracting code from communication.

C. *Use Diehr*: Claim more than just the algorithm itself. Meaningful limitations = significantly more!

- Argue claim is not to a formula/algorithm in isolation, pre-empting all uses of the formula, e.g. in *Diehr*, steps impose meaningful limits that apply the formula – they were 'something more' than mere computer implementation of calculation of the Arrhenius equation.

- Examples of meaningful limitations:
  1. Limitations beyond mathematical operations.
  2. Limitations performed on more than computer alone – other technical devices.
  3. Limitations subsequent to mathematical operations – e.g. comparing to image data and transforming/converting image.
  4. Applying the judicial exception with, or by use of, a particular machine.
  5. Effecting a transformation or reduction of a particular article to a different state or thing.
  6. Adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application.
  7. Other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment.

D. Use *DDR Holdings*: Technical challenges particular to internet are likely patent eligible! Thus, describe technical challenges.

- *DDR Holdings* involved an inventive concept for resolving an internet-centric problem.
- Additional limitations amounted to significantly more than simply applying abstract idea to the internet: constructing composite web-site with look and feel and transporting visitor there.

E. Challenge the Examiner on significantly more: Argue that the claims do amount to significantly more or challenge the Examiner's rationale for lack thereof. Again, the burden of establishing that the claims do not amount to "significantly more" than an abstract idea is on the Examiner.

- The Examiner's assertion that the claims do not contain one of the non-exhaustive Alice safe harbors, discussed above, does not establish that the claims do not amount to significantly more than an abstract idea.

Guidance Provides Examples of "NOT" Significantly More:

A. Adding words ''apply it'' (or an equivalent) with the abstract idea, or instructions to implement abstract idea on a computer – *Alice Corp*.

B. Appending well-understood, routine and conventional activities to the judicial exception and then perform operations on a computer, network or on generic computer components – *Alice Corp., Planet Bingo* and *buySAFE*.

C. Adding insignificant extra-solution activity to the judicial exception:

- *Flook* - Adjusting the alarm limit based on the solution to the mathematical formula is insignificant post solution activity.

D. Adding insignificant pre-solution activity to the judicial exception:

- *Ultramercial*

  1. Accessing and updating an activity log used only for data gathering
  2. Consumer request and restricting public access

E. Generally linking the use of the judicial exception to a particular technological environment or field of use:

- *Flook* - A field-of-use limitation is not a "meaningful" limitation

F. Gathering and combining data by reciting steps of organizing information through mathematical relationships:

- *Digitech* - gathering and combining employs mathematical relationships to generate a 'device profile.'

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[i] *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 134 S. Ct. 2347 (2014).
[ii] *Bilski v. Kappos*, 561 U.S. 593 (2010).
[iii] *buySAFE, Inc. v. Google, Inc.,* ___ F.3d ___, 112 USPQ2d 1093 (Fed. Cir. 2014).
[iv] *Ultramercial, LLC v. Hulu, LLC and WildTangent,* F.3d ___, 112 USPQ2d 1750 (Fed. Cir. 2014).
[v] *Dealertrack Inc. v. Huber*, 674 F.3d 1315 (Fed. Cir. 2012).
[vi] *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 Fed. Appx. 950 (Fed. Cir. 2014) (nonprecedential).
[vii] *Cyberfone Sys. v. CNN Interactive Grp.,* 558 Fed. Appx. 988 (Fed. Cir. 2014) (nonprecedential).
[viii] *Digitech Image Tech., LLC v. Electronics for Imaging, Inc*., 758 F.3d 1344 (Fed. Cir. 2014).
[ix] *Planet Bingo, LLC v. VKGS LLC,* ___ Fed. Appx. ___ (Fed. Cir. 2014) (nonprecedential).
[x] *Diamond v. Diehr,* 450 U.S. 175 (1981).
[xi] *Parker v. Flook,* 437 U.S. 584 (1978).
[xii] *Mackay Radio & Tel. Co. v. Radio Corp. of Am.*, 306 U.S. 86 (1939).
[xiii] *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972).
[xiv] *DDR Holdings, LLC v. Hotels.com et al.*, 113 USPQ2d 1097 (Fed. Cir. 2014).