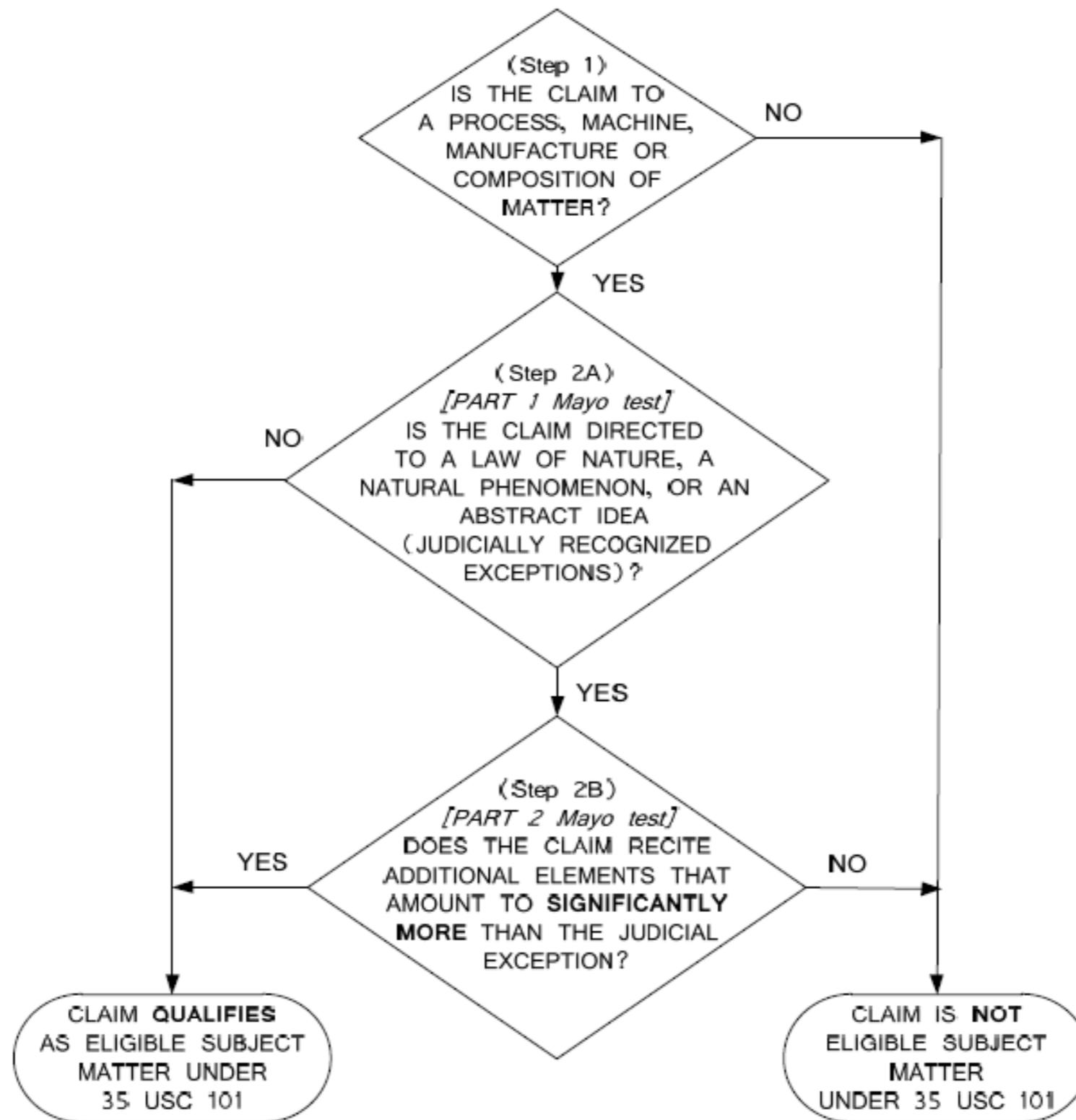


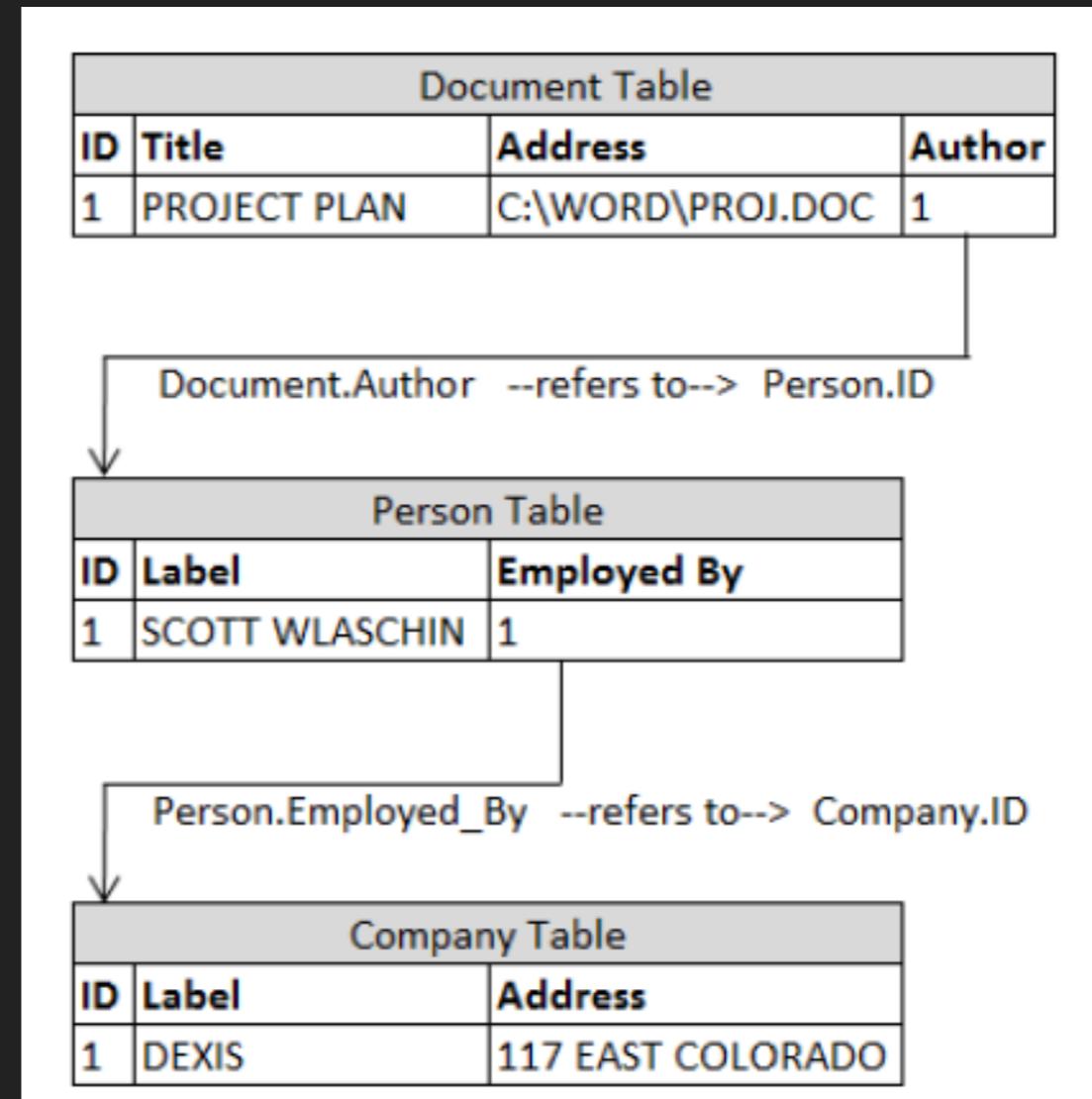
BY JOHN HEITHAUS

ENFISH V. MSFT AND THE FIRST STEP OF 101



BACKGROUND

- ▶ The '604 and '775 patents are directed to a logical model which includes all data entries in a single table, with column definitions provided by rows in that same table, i.e. a self-referential model.
- ▶ This can be understood with contrast to a relational database. In a relational model, each entity modeled is provided in a separate table. For instance, a relational model for a corporate file repository might include the following tables: document table, person table, and company table as can be seen to the right.



BACKGROUND

- ▶ The self referential table includes the same information, but an additional row is included in the self referential table. The row defines characteristics of a column in the same table.
- ▶ Multiple benefits flow from this design. The patents disclose an indexing technique that allows for faster searching of data. Also the model allows for more effective storage of data other than structured text, such as images and unstructured text. The model allows more flexibility in configuring the database.

| SELF-REFERENTIAL TABLE | | | | | | |
|------------------------|----------|--------------|----------------|-------------------|------------------|--------|
| ID | Type | Title | Label | Address | Employed By (#4) | Author |
| #1 | DOCUMENT | PROJECT PLAN | | C:\WORD\PROJ.DOC | | #2 |
| #2 | PERSON | | SCOTT WLASCHIN | | #3 | |
| #3 | COMPANY | | DEXIS | 117 EAST COLORADO | | |
| #4 | FIELD | | EMPLOYED BY | | | |

CLAIMS

- ▶ The claims at issue recite:
 - ▶ A data storage and retrieval system for a computer memory, comprising: means for configuring said memory according to a logical table, said logical table including: a plurality of logical rows, each said logical row including an object identification number (OID) to identify each said logical row, each said logical row corresponding to a record of information; a plurality of logical columns intersecting said plurality of logical rows to define a plurality of logical cells, each said logical column including an OID to identify each said logical column; and means for indexing data stored in said table.

CLAIMS

- ▶ “Means for configuring” invokes 35 U.S.C. 112, sixth paragraph:
 - ▶ Create, in a computer memory, a logical table that need not be stored contiguously in the computer memory, the logical table being comprised of rows and columns, the rows corresponding to records, the columns corresponding to fields or attributes, the logical tables being capable of storing different kinds of records.
 - ▶ Assign each row and column an object identification number (OID) that, when stored as data, can act as a pointer to the associated row or column and that can be of variable length between databases.
 - ▶ For each column, store information about that column in one or more rows, rendering the table self-referential; the appending, to the logical table, of new columns that are available for immediate use being possible through the creation of new column definition records.
 - ▶ In one or more cells defined by the intersection of the rows and columns, store and access data, which can include structured data, unstructured data, or a pointer to another row.

PROCEDURAL POSTURE

- ▶ Appeal from grant of Summary Judgement in the Central District of California.
- ▶ District Court found that as the first step of Mayo the court must identify whether a claim is directed to an abstract idea. The District court characterized step one as a sort of “quick look” test. The purpose of which is to identify risk of preemption and ineligibility. Prior art plays not role in step one.
 - ▶ The court must first ascertain the purpose of the claim.
 - ▶ The court must second determine whether that purpose is abstract.
- ▶ District Court found that all asserted claims of the ‘604 and ‘775 patents were directed to abstract ideas. Every claim has a similar purpose: storing, organizing, and retrieving memory in a logical table. For millennia humans have used table. A patent on tables would preempt too much future inventive activity. The patent term “logical table” demonstrates abstractness. The term “logical table” refers to a logical data structure, as opposed to a physical data structure.
- ▶ Under the second step of the Mayo analysis the District Court did not find that the claims provided significantly more, e.g. provide an inventive concept.

FEDERAL CIRCUIT

- ▶ Section 101 provides that a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” However, laws of nature, natural phenomena, and abstract ideas are not patentable.
- ▶ No definitive rule exists to determine what constitutes an “abstract idea” sufficient to satisfy the first step of the Mayo/Alice inquiry. The Federal Circuit and Supreme Court compare claim at issue to those already found to be directed to an abstract idea in previous cases.
- ▶ *Supreme Court precedent directs us first to determine whether the claims at issue are directed to a patent-ineligible concept.* If this threshold determination is met, we move to the second step of the inquiry and consider the elements of each claim both individually and as an ordered combination.

FEDERAL CIRCUIT

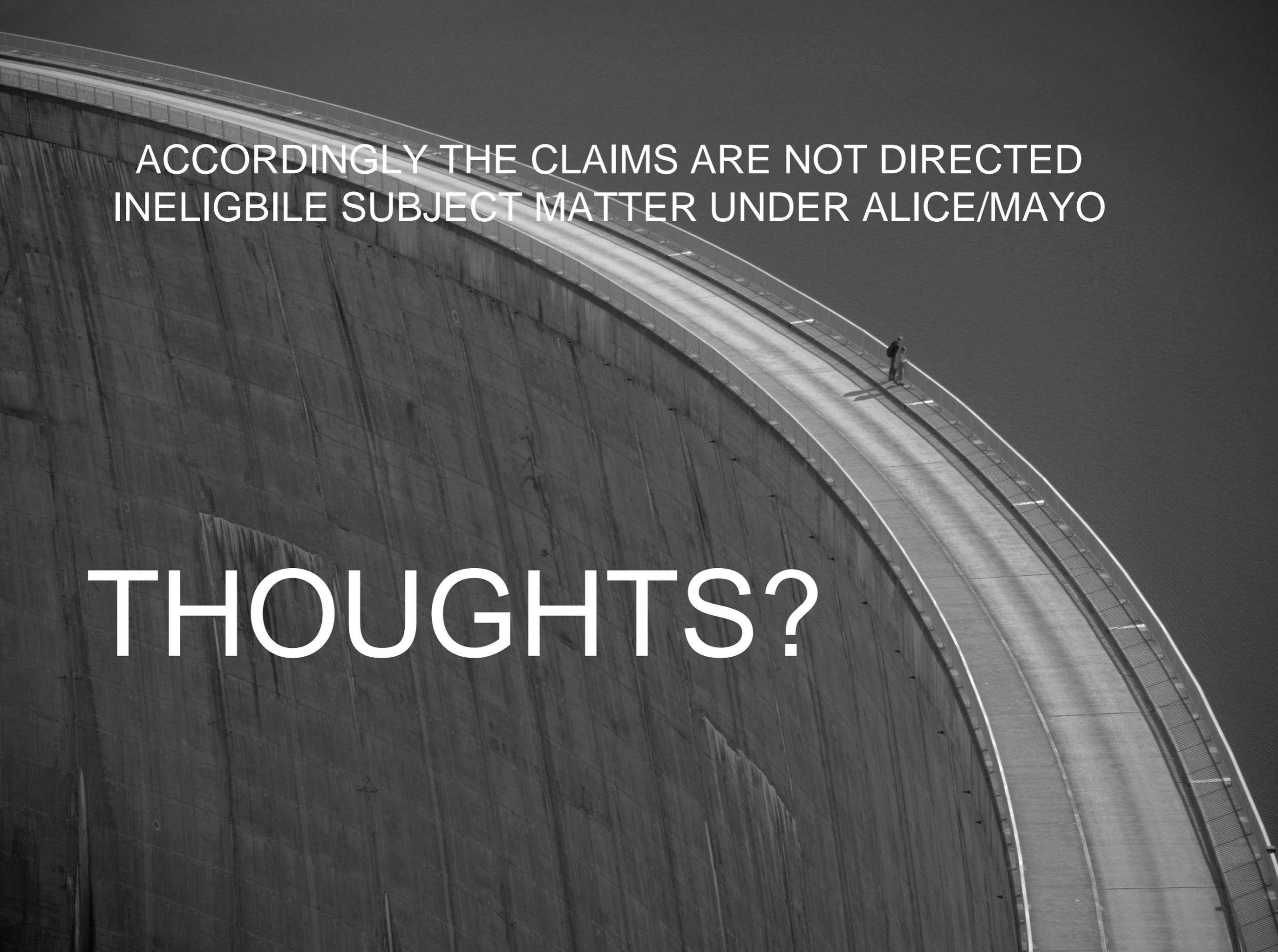
- ▶ **The first step of the inquiry is a meaningful one**, i.e., that a substantial class of claims are not directed to a patent-ineligible concept. “Directed to” does mean simply involve a patent-ineligible concept. *Rather the “directed to” inquiry applies a stage-one filter to the claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.”*
- ▶ The Supreme Court has suggested that claims “purporting to improve the functioning of a computer itself” might not succumb to the abstract idea exception.
- ▶ The Federal Circuit reasoned that software can make non-abstract improvements to computer technology just as hardware improvements can; sometimes the improvements can be accomplished through either route. Thus, there is no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of Alice.
- ▶ Here the first step in the Alice inquiry asks whether the focus of the claims is on the specific asserted improvement in computer capabilities.

FEDERAL CIRCUIT

- ▶ The Federal Circuit found that describing the claims at a high level of abstraction and untethered from the language of the claims all but ensures that exceptions to 101 swallow the rule.
- ▶ Here the claims are not directed to any form of storing tabular data, but are instead specifically directed to a self-referential table.
 - ▶ The specification emphasizes that “the present invention comprises a flexible, self-referential table that stores data.”
 - ▶ The specification teaches that the self referential table functions differently than conventional database structures.
 - ▶ Moreover, the claims are directed to an improvement to an existing technology as bolstered by the other benefits over conventional databases such as increased flexibility, faster search time, and smaller memory requirements.

FEDERAL CIRCUIT

- ▶ The invention's ability to run on a general purpose computer does not doom the claims. The claims here are directed to the improvement in the functioning of a computer. Alice and Versata were simply adding conventional computer components to well-known business practices. The patent ineligible claims were directed to the use of an abstract mathematical formula.
- ▶ That the improvement is not defined by reference to physical components also does not doom the claims. Much of the advancement in computer technology consists of improvements in software.



ACCORDINGLY THE CLAIMS ARE NOT DIRECTED
INELIGIBLE SUBJECT MATTER UNDER ALICE/MAYO

THOUGHTS?

FEDERAL CIRCUIT: TLI COMMUNICATIONS

▶ Claim:

- ▶ A method for recording and administering digital images, comprising the steps of: recording images using a digital pick up unit in a telephone unit, storing the images recorded by the digital pick up unit in a digital form as digital images, transmitting data including at least the digital images and classification information to a server, wherein said classification information is prescribable by a user of the telephone unit for allocation to the digital images, receiving the data by the server, extracting classification information which characterizes the digital images from the received data, and storing the digital images in the server, said step of storing taking into consideration the classification information.

FEDERAL CIRCUIT: TLI COMMUNICATIONS

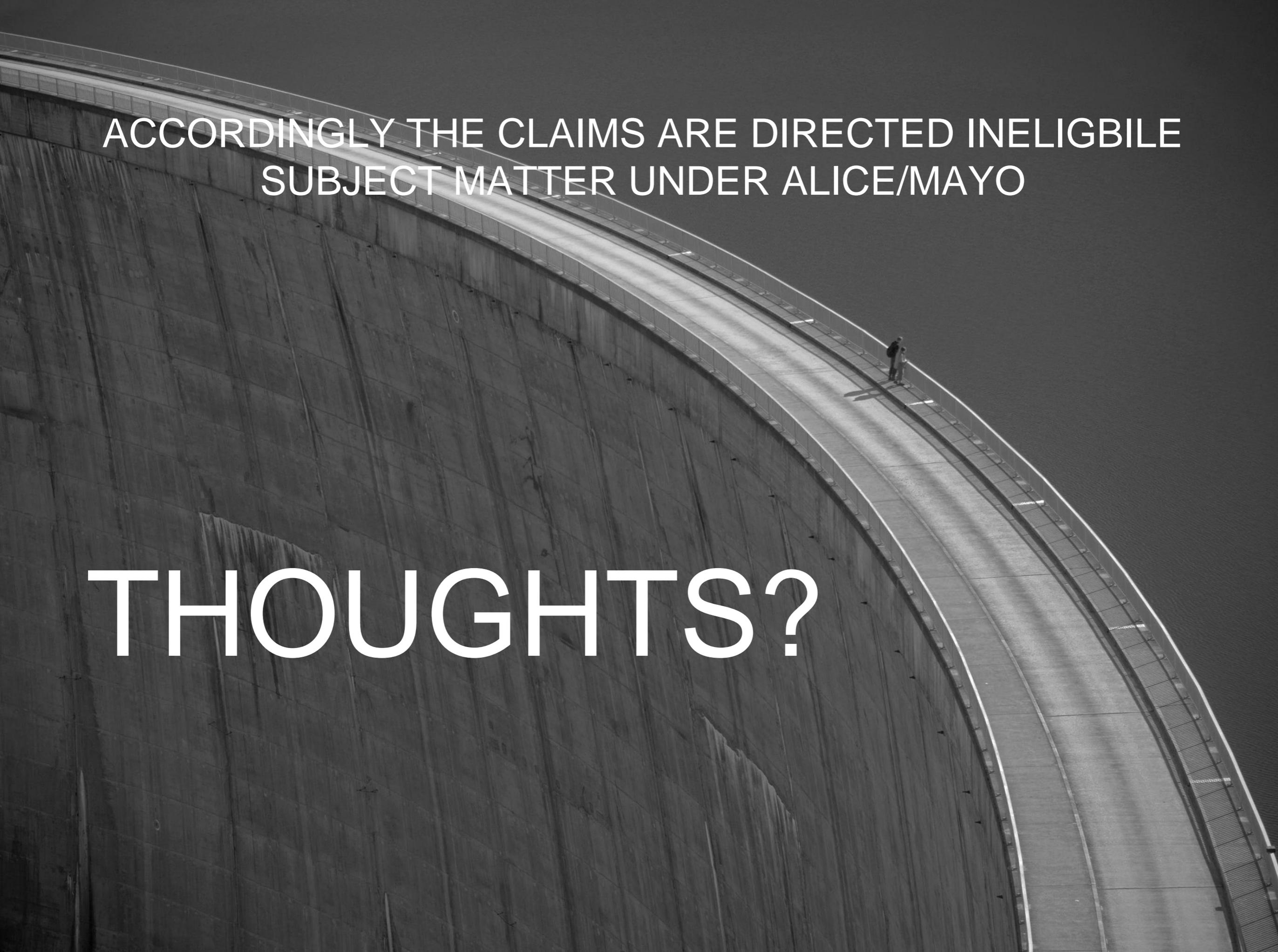
- ▶ The claim is drawn to the concept of classifying an image and storing the image based on its classification.
- ▶ While the claim requires components such as “a telephone unit,” the specification makes clear that the recited physical components merely provide a generic environment in which to carry out the abstract idea of classifying and storing digital images in an organized matter.
- ▶ The specification emphasizes that the present invention “relates to a method for recording, communicating and administering [a] digital image”.
- ▶ The claims here are not directed to a specific improvement to computer functionality unlike ENFISH.

FEDERAL CIRCUIT: TLI COMMUNICATIONS

- ▶ According to the '295 patent, the problem facing the inventor was the to “provide for recording, administering, and archiving of digital images simply, fast, and in such way that the information may be easily tracked.”
 - ▶ The problem facing the inventor was not how to transmit images via a cellular network.
 - ▶ The problem facing the inventor was not how to append classification to that data.
 - ▶ The problem facing the inventor was not related to the structure of the server that organized the digital images.

FEDERAL CIRCUIT: TLI COMMUNICATIONS

- ▶ The specification does not describe a new telephone, a new server, or a new physical combination of the two. The specification predominately describes a system and methods in purely functional terms.
 - ▶ The telephone unit itself is merely a conduit for the abstract idea of classifying an image and storing the image based on its classification.
 - ▶ The server is described simply in terms of performing generic computer functions.
- ▶ The focus of the patentee was not on an improved telephone unit or an improved server.
- ▶ The claims are not directed to a solution to a “technical problem”. Nor do the claims attempt to solve “a challenge particular to the internet.”



ACCORDINGLY THE CLAIMS ARE DIRECTED INELIGIBLE
SUBJECT MATTER UNDER ALICE/MAYO

THOUGHTS?

MAY 2016 SUBJECT MATTER ELIGIBILITY UPDATE

- ▶ A subject matter eligibility rejection should point to the specific claim limitation that recites the judicial exception. The rejection must identify the specific claim limitations and explain why these claim limitations set forth a judicial exception.



MAY 2016 SUBJECT MATTER ELIGIBILITY UPDATE

- ▶ When the examiner has determined the claim recites an abstract idea, the rejection should identify the abstract idea as it is recited, and explain why it corresponds to a concept that the courts have identified as an abstract idea. Examiners should not go beyond those concepts that are similar to what the courts have identified as abstract ideas.
- ▶ When the examiner has determined the claim recites a law of nature or a natural phenomenon the rejection should identify the law of nature or natural phenomena as it is recited in the claim and explain using a reasoned rationale why it is considered a law of nature or a natural phenomenon.
- ▶ When the examiner has determined the claim recites a product of nature, the rejection should identify the exception as it is recited in the claim, and explain using a reasoned rationale why the product does not have markedly different characteristics.

MAY 2016 SUBJECT MATTER ELIGIBILITY UPDATE

- ▶ **Sample explanation:** The claim recites the steps of sorting information by X, which is an abstract idea similar to the concepts that have been identified as abstract by the courts, such as organizing information through mathematical correlations in *Digitech* or data recognition and storage in *Content Extraction*.
- ▶ **Sample explanation:** The claim recites the correlation of X, and X is a law of nature because it describes a consequence of natural processes in the human body, e.g., the naturally-occurring relationship between the presence of Y and the manifestation of Z
- ▶ **Sample explanation:** The claim recites X, which is a natural phenomenon because it occurs in nature and exists in principle a part from any human action.

CLAIMS FOR DISCUSSION

- ▶ A method for diagnosing an individual with B-cell lymphoma comprising: obtaining a sample of biological fluid from the individual; detecting microRNA expression levels of one of miR-1000 and miR-2000; determining the individual's B-cell count; calculating a clinical score of the individual based on the expression levels of said microRNAs and the patient's B-cell count; and diagnosing the individual with B-cell lymphoma based on the clinical score.

CLAIMS FOR DISCUSSION

- ▶ A method for updating the value of at least one alarm limit based on at least one process variable involved in a process comprising the catalytic chemical conversion of hydrocarbons wherein said alarm limit has a current value of $B0 + K$ wherein $B0$ is the current alarm base and K is a predetermined alarm offset which comprises:
 - (1) Determining the present value of said process variable, said present value being defined as PVL ;
 - (2) Determining a new alarm base $B1$, using the following equation:
$$B1 = B0(1.0-F) + PVL(F)$$
where F is a predetermined number greater than zero and less than 1.0
 - (3) Determining an updated alarm limit which is defined as $B1 + K$; and thereafter
 - (4) Adjusting said alarm limit to said updated alarm limit value.