Out of Wonderland from *Diehr* to *Aatrix*:
Three Steps to Overcoming 101 Rejections – Part II
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This second part of a two-part article discusses four decisions by the U.S. Court of Appeals for the Federal Circuit finding subject matter eligibility under step 2 of *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*,[12] and provides a three-step guide to handling Section 101 rejections.

Decisions Finding Subject Matter Eligibility under *Alice* Step 2: An Inventive Concept That Transforms an Abstract Idea into a Patent Eligible Invention

Case 9
Bascom Global Internet Services v. AT&T Mobility LLC, **827 F.3d 1341 (Fed. Cir. 2016): Content Filtering Using Remote ISP**

Bascom involves 1997-era customizable filtering on a remote Internet service provider ("ISP") server for multiple Internet accounts. Claim 1 recites an individually customizable filter, as follows:

> A content filtering system for filtering content retrieved from an Internet computer network by individual controlled access network accounts, said filtering system comprising:
> a local client computer generating network access requests for said individual controlled access network accounts;
> at least one filtering scheme;
> a plurality of sets of logical filtering elements; and
> a remote ISP server coupled to said client computer and said Internet computer network, said ISP server associating each said network account to at least one filtering scheme and at least one set of filtering elements, said ISP server further receiving said network access requests from said client computer and executing said associated filtering scheme utilizing said associated set of logical filtering elements.

In *Bascom,* the court found that, under *Alice* filtering step 1, the invention was an "abstract idea" because it involved filtering, which is a "long-standing, well-known method for organizing human behavior, similar to concepts previously found to be abstract." However, the claims as a whole recited a discrete implementation of an abstract idea that was a technical improvement over prior art ways of filtering content. The inventive concept harnessed a specific technical feature of the Internet Protocol, which enabled a technologically improved filtering scheme that was not conventional or generic. The claims thus provided for an eligible technology-based solution as well as a software- based invention that improves on the performance of the computer itself and thereby transforms an abstract idea into a patent eligible invention.

Case 10
Amdocs v. Openet Telecom, **841 F.3d 1288 (Fed. Cir. 2016): Improved Computer Accounting Program**

The invention in *Amdocs* involves a system which allows network service providers to account for and bill for Internet protocol ("IP") network communications and includes information source modules, gatherers, a central event manager, a central database, a user interface, servers, and terminals. Representative claim 1 recites:

> A computer program product embodied on a computer readable storage medium for processing network accounting information comprising:
> computer code for receiving from a first source a first network accounting record;
> computer code for correlating the first network accounting record with accounting information available from a second source; and
> computer code for using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.

The court concluded that claim 1 was narrowly drawn to not preempt generic enhancement of data and instead purposely arranges the components in a distributed architecture to achieve a technological solution specific to computer networks. More specifically, the distributed architecture of the claims solved the technological problem of large record flows to a central location by enhancing the distributed data matching capabilities of the network. Although the subcomponents were generic, the claims have them working together in a new distributed manner. As such, the distributed architecture provides "something more" than the performance of well-understood routine and conventional activities previously known in the industry. The court compared the claim at issue favorably with those of Bascom and DDR Holdings which were technical improvements over the prior art and served to improve the performance of the system itself.

Case 11
***Berkheimer v. HP Inc.,* No. 2017-1437, 2018 U.S. App. LEXIS 3040 (Fed. Cir. Feb. 8, 2018):**
Evidence Required for Well-Understood, Routine, and Conventional Activity

Berkheimer is a departure from other Federal Circuit cases in that it offers a new weapon against those PTO rejections that conclude, without support, that the invention merely computerizes well-understood, routine, and conventional activities.

The patent at issue relates to processing and archiving files in a digital asset management system. Pertinent portions of claims 1 and 4 of the *Berkheimer* patent are set forth below:

1. A method of archiving an item comprising in a computer processing system: presenting the item to a parser…;
parsing the item into a plurality of multi-part object structures… evaluating the object structures…;
presenting an evaluated object structure for manual reconciliation…

4. The method as in claim 1 which includes storing a reconciled object structure in the archive without substantial redundancy.

The court in *Berkheimer* analyzed claims 1 and 4 under *Alice* step 1 and concluded that they recited the abstract concepts of parsing and storing data. Under *Alice* step 2, the court looked at whether or not the additional elements transform the nature of the claim into a patent eligible concept. In construing claim 1, the court concluded that it did not disclose any of the unconventional activities disclosed in the specification (which the inventor admitted existed for years before his patent). However, claim 4 recites a "reconciled object structure" which the patent specification explained involved a one-to-many editing capability that substantially reduces efforts to update files, and which is described as unconventional. The court found that there was a genuine issue of material fact whether or not claims 4–7 performed well-understood, routine, and conventional activities or whether they were transformative unconventional techniques that improve computer functionality. The court concluded that facts pertinent to the invalidity conclusion must be proven by clear and convincing evidence, and the mere fact that something is disclosed in a piece of prior art does not necessarily mean it was well understood, routine, and conventional. The court vacated the grant of summary judgment on claims 4-7 and remanded for further fact finding.

For practitioners, *Berkheimer* provides a basis for challenging unsupported conclusions by the Examiner that the claims recite conventional use of hardware. More critically, *Berkheimer* also can support a challenge to such a conclusion by the Examiner even when the Examiner does cite to some prior art. Berkheimer, however, may also be seen as an outlier, and it well may be further tested *en banc.*

Case 12
***Aatrix Software, Inc. v. Green Shades Software, Inc.*, 2017-1452, 2018 U.S. App. LEXIS 3463 (Fed. Cir. Feb. 14, 2018): Factual Basis Required for Rule 12(b)(6) Dismissal under 101**

The *Aatrix* decision follows *Berkheimer* regarding the proper factual and procedural basis required by the Federal Circuit to warrant early dismissal—in this case under F.R. 12(b)(6). The technology in *Aatrix* relates to systems for creating viewable forms and reports. Representative claim 1 reads in pertinent part as follows:

> A data processing system for designing, creating, and importing data into, a viewable form viewable by the user of the data processing system, comprising:
> a form file that models the physical representation of an original paper form…;
> a form file creation program that imports a background image from an original form…; a data file containing data from a user application for populating the viewable form; and a form viewer program … to perform calculations, allow the user of the data processing system to review and change the data, and create viewable forms and reports.

At the district court, defendant Green Shades moved to dismiss under Section 101 as the claims were "not directed to any tangible embodiment." The Federal Circuit first analyzed claim 1 and found that it was tangible since it fulfilled one of the four statutory categories under Section 101 by containing a data processing system, a means for viewing changing data, and a means for viewing forms. The court then found error in the district court's denial of leave to amend the complaint since the proposed complaint added specific allegations that are directed to improvements over the prior art that improve the functioning of computers. Moreover, the court followed its reasoning in *Berkheimer,* concluding that there was insufficient basis for the district court to decide under *Alice* step 2 that the data file limitation was well understood and routine. The dismissal was vacated and remanded, although with Judge Reyna's strongly worded dissent, it would come as no surprise that *Berkheimer* and *Aatrix* would be reviewed en banc. For practitioners, *Aatrix* also provides, at least for the time being, a basis (like *Berkheimer*) for challenging unsupported conclusions by the Examiner that the claims recite conventional use of hardware.[13]

Follow These Three Steps

Step 1: Develop a Set of Proposed Claims

Using guidance from the 12 cases discussed above, treat your 101 rejection as a stand-alone issue. A successful response to a PTO rejection may require a case-law-justified approach aimed at giving the Examiner a legal basis on which to justify withdrawal.[14] Accordingly, the first step is to compare your specification to some of the drafting factors set out below and, if possible, amend your claims to better match or amplify those factors. It may be helpful in working with some Examiners to use the amended claims as part of a draft proposal submitted in advance of the interview.

Step 2: Interview the Patent Examiner

Many PTO rejections apply the two-part *Alice* test in rather formalistic, conclusive, and somewhat vague terms. Since 101 rejections are case-law based, unlike 102 or 103 rejections, the practitioner may be left struggling with case law statements by the Examiner about what constitutes "an abstract idea" with few guideposts. Examiners are trained under the guidelines to issue clear rejections using case law support and examples. What they are not trained to do is assist the practitioner in developing claim language that would, in their estimation, overcome an abstract idea rejection based on case law precedent. To some extent, this is not surprising, since many Examiners would conclude this is not part of their job. Fair enough. But as practitioners, there is also no reason why we cannot ask for their help, or at least cooperation, in developing claims that would pass Section 101 muster.

Interviews can help clear away some of the *Alice* "fog." For example, during interviews some Examiners have candidly indicated their utter confusion with the *Alice* test and the PTO's voluminous guidelines. In some instances, they have admitted that they are looking for a well-supported rationale to justify the claims under 101 case law. In other instances, Examiners have clear ideas about acceptable claim language under 101, but will not necessarily suggest alternative language. More informed Examiners may have favorite cases or approaches to language that provide clearer lines for consideration. For example, an Examiner may be particularly interested in seeing claim language reciting a control signal to an external

device (following the tire mold control in *Diamond v. Diehr*), or some in-depth claim language exposing the processing algorithms or rules (following the technical rules that convinced the Federal Circuit that the GUI in *McRO v. Bandai.* involved technical software), or a good discussion regarding how and why the claims solve a technical problem that has hitherto not been addressed by the prior art (*e.g.,* where the captive website solved a technical problem on the Internet in *DDR Holdings v. Hotels.com*). Finally, some of the more knowledgeable Examiners are looking for guidance from particular Federal Circuit decisions they find to be illustrative as a basis for supporting their rejection (or possible allowance). In any event, only a conversation with the Examiner will efficiently uncover his or her thinking (or bias) on the subject and, at a minimum, help clarify how to respond to a rejection.

Step 3: Tie Amended Claims and Your Remarks to Relevant 101 Cases

Regardless of the Examiner's attitude, it can be useful to draft your application or amend your claims to follow a clear case-law based foundation. This means following not only the *Alice* test in application, but also those cases where claims were determined to pass muster by courts whether applying the *Alice* test or *Diamond v. Diehr.* Moreover, it may be critical to shape your arguments based on how the invention has improved over the prior art from a technological standpoint. This is to avoid *Alice* step 2: the argument that all the patent does is computerize the prior art using standard components merely as "tools" to carry out the abstract idea itself. To the extent you want the claims to be tied to algorithms, rules, or structure in the specification, include means plus function language (MPF) which is interpreted more narrowly. The MPF format was found to be helpful in *Enfish* since it provided a shortcut to ample technical support language in the patent specification. And if the Examiner rejects the claims based on mere conclusions, then by all means use the *Berkheimer* case. Finally, you may not be able to tie the claims to the algorithms and rules if they are not disclosed in the original specification, so, when possible, include specific technical features during patent drafting—details that might have been left out in a pre-*Alice* world. You may even want to consider adding source code in an Appendix (a key consideration in the Visual Memory case), which could provide flexibility later on in the event you want to avoid a new matter rejection.

Conclusion

Post-*Alice*, the PTO is aggressively rejecting software claims under the *Alice* two-part test, the parameters of which many Examiners are still trying to understand. By following the steps discussed here, you have the best shot at overcoming a non-statutory subject matter rejection:

1. Interview the Examiner to see if he or she has specific claim terms in mind.

2. Read the specification to find:

   a. Technological details of the claimed invention;
   b. Descriptions of the control of external hardware;
   c. Specific processing rules or logic that improve hardware performance;
   d. Descriptions of improved display interfaces; and
   e. Clear differences from non-computer/non-Internet practices.

3. Revise claims with specificity, including using means or step plus function language where technological details are important, and avoiding the recitation of mere processing results.

4. Tie remarks into specific Federal Circuit cases.

5. Dispute conclusory statements asking for evidence by the Examiner by citing *Berkheimer* or by providing evidence through an expert affidavit.

6. If claims are allowed without remarks, add legal justification in subsequent filings to support claims on appeal or in litigation.

Notes

[12] 134 S. Ct. 2347 (2014).

[13] In a recently published memo, the USPTO instructed Examiners the "well understood, routine, and conventional" analysis is distinct from anticipation or obviousness analysis and specifies "merely finding [an] additional element in a single patent or published application would not be sufficient to demonstrate that the additional elements is well-understood, routine, convention…." Pg. 4 of the Memorandum- Revising 101 Eligibility Procedure in view of *Berhkeimer v. HP, Inc.* (www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF).

[14] A useful tool is the Index of Eligibility Examples currently available at www.uspto.gov/sites/default/files/documents/ieg-example-index.pdf.