Rebutting 101 Rejections
Asserting 'Idea Of Itself': Part 2

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Part 1 of this article suggested that the recent examination guidelines for determining subject matter eligibility offer new opportunities for responding to § 101 rejections. Specifically, part 1 proposed a response strategy in view of one new examination guideline suggesting that examiners should not identify a claimed concept as an abstract idea “unless it is similar to at least one concept that the courts have identified as an abstract idea.”

That strategy involved (1) distinguishing pending claims from those at issue in the cases discussing the asserted abstract concepts and (2) explaining why the reasoning employed by the courts in those cases does not apply to the present claims.

To assist practitioners and applicants with this strategy, part 1 of this article reviewed the cases for three broad concepts courts have held to be abstract ideas, and which fall into the category of “an idea ‘of itself.’” Those concepts were “collecting and comparing known information,” “obtaining and comparing intangible data,” and “using categories to organize, store, and transmit information.”

Part 2 of this article will review the decisions discussing the concepts of “data recognition and storage,” “organizing information through mathematical correlations,” and “comparing new and stored information and using rules to identify options.”

Data Recognition and Storage

The Federal Circuit discussed “data recognition and storage” in the post-Mayo and post-Alice case of Content Extraction & Transmission v. Wells Fargo Bank NA (CET).[1]

In CET, the patents at issue were U.S. Pat. No. 5,258,855 and its continuations, U.S. Pat. Nos. 5,369,508, 5,625,465, and 5,768,416 — each titled “Information Processing Methodology.”

The claimed subject matter was directed to digitizing hardcopy documents and recognizing specific information from the digitized versions of the documents. Accordingly the “data” recognized and stored in CET related to the data contained in those digitized versions of the documents.

The representative claims included claim 1 from each of the ‘855 and ‘416 patents.

Claim 1 of the ‘855 patent recited a method of processing a digitized version of a document having three steps: (1) receiving, from an automated digitizing unit, output representing a hardcopy document, (2) recognizing which portion the document corresponded to a desired data field, and (3) storing data from that portion of the document in memory. Claim 1 of the ‘416 patent recited steps for identifying, based on instructions interactively received from a user or based on automatic matching using a predefined template, which portions of a
digitized document provided information required by a software application.

Ultimately, the Federal Circuit affirmed the invalidity of the patents at issue under § 101 because it found that none of the independent or dependent claims recited “significantly more” than extracting and storing data from hardcopy documents using conventional scanning and processing technology.

To reach its decision, the Federal Circuit applied Mayo’s two-part test for subject matter eligibility.

Concluding that the claims were directed to an abstract idea, the court noted the humans have long performed the functions of collecting data, recognizing specific data within the data collected, and storing the recognized data in memory.

CET argued that its claims were distinguishable from other claims deemed to be abstract (such as those at issue in Alice)[2] because (1) its claims required both a computer and a scanner, and (2) the human mind could not process the bit stream output by the scanner. Unpersuaded, the Federal Circuit pointed out that that claims at issue in Alice also required a computer that processed a bit stream but were nonetheless deemed to be ineligible subject matter.

The Federal Circuit also concluded that the claims did not recite “significantly more” than the abstract idea of data recognition and storage because CET’s claims only recited the use of computers and scanners in well-known and conventional ways. Indeed, CET itself acknowledged that digitizing hardcopy documents and using computers to recognize information in digitized documents were well-known activities at the time of filing its applications. As a result, the court found that CET’s claims contained no “inventive concept” using this technology that amounted to significantly more than the abstract idea itself.

Furthermore, even though CET did not separately address its dependent claims, the Federal Circuit found no inventive concept in any of these claims either. The court likewise determined that the dependent claims reciting steps for detecting specific data fields in the documents and storing data as images or text were also well-known and conventional uses of scanners and computing technology.

Practitioners and applicants may find additional useful commentary in CET regarding the search for an “inventive concept” in claims that recite using computing technology in ways that might be viewed as well-known and conventional.

Organizing Information Through Mathematical Correlations

The Federal Circuit discussed “organizing information through mathematical correlations” in the post-Mayo and post-Alice case of Digitech Image Tech., LLC v. Electronics for Imaging, Inc.[3]

In Digitech, U.S. Pat. No. 6,128,415, entitled “Device Profiles for Use in a Digital Image Processing System,” was at issue.

The claimed subject matter was directed to a device profile containing data for transforming device-dependent color and spatial properties of a digital image to an independent color space. Accordingly the “information” organized through mathematical correlations in Digitech related to the data describing the transformation of a digital image’s color and spatial content.
Claims 1, 10, and 26 were selected as the representative claims.

Claims 1 and 26 recited the device profile itself while claim 10 recited a method for generating the device profile. Claim 1 recited that the device profile included two sets of data: (1) data describing a transformation of the color content of a digital image to an independent color space, and (2) data describing a transformation of the spatial content of the image to the independent color space. Claim 26 only recited the data describing the transformation of the spatial content.

Claim 10 recited a method having steps for (1) generating the data describing the transformations of the image’s color and spatial content and (2) combining that data in a device profile.

Ultimately, the Federal Circuit concluded that the claims of the '415 patent did not recite patent-eligible subject matter because the device profile itself did not fall into one of the four categories of statutory subject matter and the method of generating the device profile was not sufficiently tied to a specific structure or machine.

With respect to the device profile itself, the Federal Circuit found that it was not "a tangible or physical thing." Specifically, the court observed that the claims did not recite a tangible embodiment of the device profile (e.g., in physical memory) or any tangible part of the digital processing system. In response to Digitech's arguments that the device profile was embodied as hardware or software (e.g., a tag file appended to the digital image), the Federal Circuit noted that none of the claims recited such language.

The court also viewed the device profile claims as even broader than the claim to a “signal” in In re Nuijten.[4] In that case, the Federal Circuit held that a transitory signal was not directed to statutory subject matter under § 101 even after acknowledging that such a signal had physical properties with tangible causes/effects. Simply, the Federal Circuit held that "[d]ata in its ethereal, non-physical form” does not fall within one of the four statutory categories of patentable subject matter.

Regarding the method of generating the device profile, the Federal Circuit rejected Digitech’s arguments that the claimed method was sufficiently tied to a digital image processing system that was integral to the transformation of a digital image. In particular, the court concluded that the recited steps amounted to nothing more than employing mathematical algorithms to manipulate existing information (e.g., color and spatial content) in order to generate new information (e.g., the transformation data), which could not impart subject matter eligibility.

Finally, the court observed that nothing in claim 10 expressly tied the method to a specific structure or machine since the claim only referenced a digital image reproduction system in its preamble. In addition, the court observed that the steps of generating and combining the data did not require input from a physical device such as an image processor. In making these observations, however, the court did caution that it was not commenting on whether tying the claimed method to an image processor would impart subject matter eligibility to the claim.

Practitioners and applicants may likewise find additional useful commentary in Digitech for claims reciting subject matter directed to the collection, manipulation, and generation of data. The abstract idea examples accompanying the U.S. Patent and Trademark office’s 2014 "Interim Guidance on Patent Subject Matter Eligibility" also discusses Digitech at
Comparing New and Stored Information and Using Rules to Identify Options


In SmartGene, two of Advanced Biological Laboratories’ patents were at issue: U.S. Pat. Nos. 6,081,786 and 6,188,988, each entitled “Systems, Methods and Computer Program Products for Guiding the Selection of Therapeutic Treatment Regimens.”

The subject matter of these patents related to using a computing device having knowledge of and rules for evaluating various treatment regimens to guide the selection of a particular regimen for a patient. The “information” and “rules” used to “identify options” in SmartGene thus related to the knowledge base of available treatment regimens, the rules for evaluating those regimens, and the list of optional regimens for the patient.

Claim 1 of the ’786 patent was selected as the representative claim and recited a method for guiding the selection of a treatment regimen having three steps: (1) providing patient information to a computing device with knowledge of various treatment regimens, rules, and advisory information, (2) generating a ranked list of regimens for treating a patient, and (3) generating advisory information based on the patient information received and the stored rules.

Ultimately the Federal Circuit held that the claims of the ’786 and ’988 patents did not recite patent-eligible subject matter because the court concluded the claims did not amount to significantly more than using a computer to perform the mental steps doctors routinely carry out in treating their patients.

The Federal Circuit again applied Mayo’s two-part test.

Concluding that the claims were directed to an abstract idea, the Federal Circuit cited to the principle set forth in CyberSource[6] (discussed in part 1 of this article) that § 101 does not encompass processes reciting the use of a computer to perform a sequence of steps that could each be mentally performed by a human. With this in mind, the court viewed doctors themselves as having all the information necessary to identify available treatment regimens as well as the rules and the advisory information used to evaluate, select, and administer those regimens.

Turning to the question of whether claim 1 recited significantly more than the asserted abstract idea, the Federal Circuit concluded that it did not since the recited computing device was defined solely in terms of functionality, which, according to the court, could be performed entirely in the mind of a human. In other words, the court was unable to locate any claim features that amounted to significantly more than the steps doctors mentally perform when determining how to treat their patients.

Citing to Mayo, the court noted that, to recite patent-eligible subject matter, product claims must apply the abstract idea “in the realm of physical objects,” and that process claims must apply the abstract idea in the realm of “physical actions” that go beyond well-understood, conventional activity. With respect to claim 1, however, the court held that its
physical implementation did not go beyond the routine mental activities doctors routinely perform.

Practitioners and applicants may again find additional useful commentary in SmartGene regarding claims that recite computer-implemented methods in which the computing devices used to implement those methods are defined in terms of their functionality.

**Part 3**

The last part of this article will discuss two final concepts courts have previously found to be abstract ideas: “comparing data to determine a risk level” and “comparing information regarding a sample or test subject to a control or target data.”

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