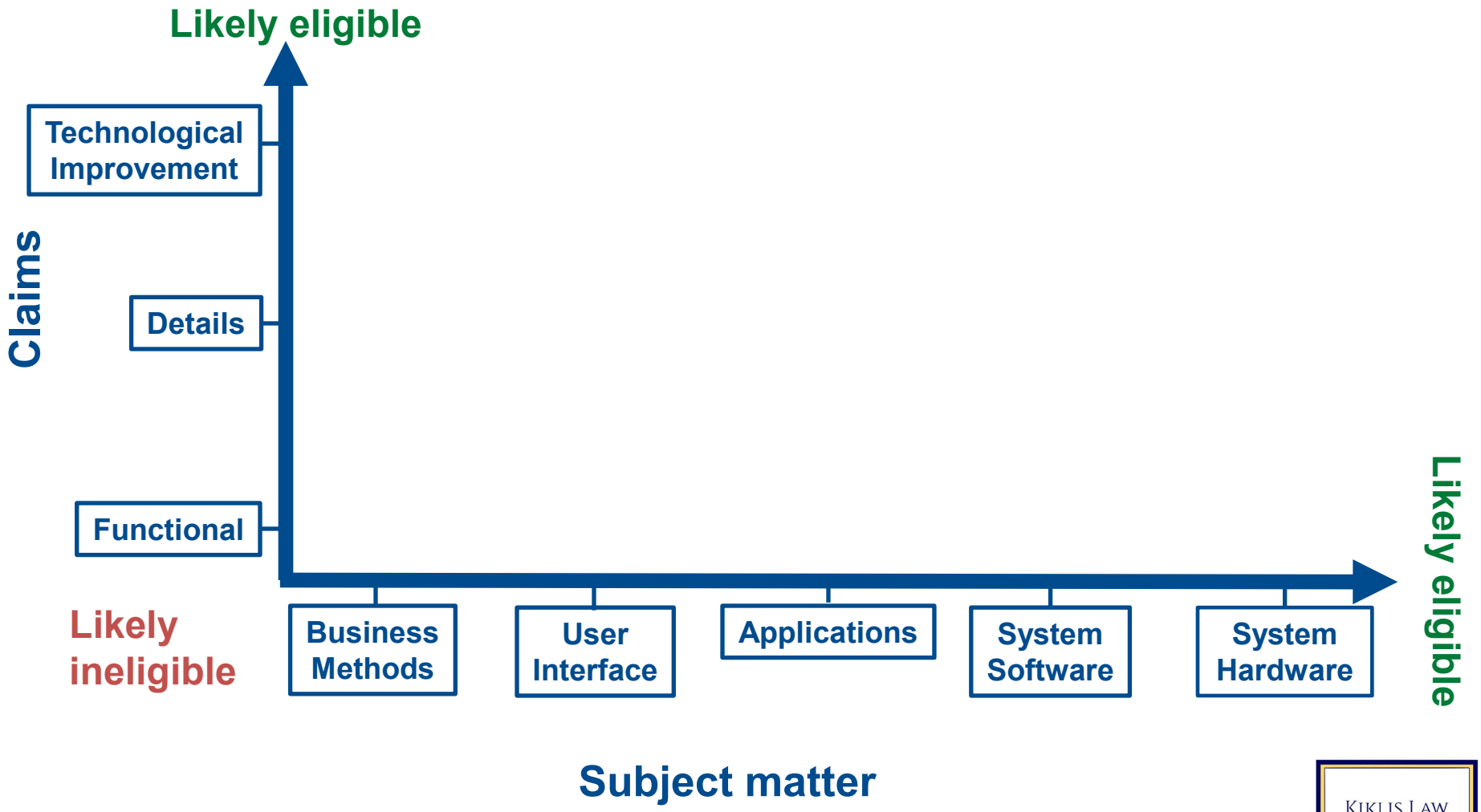
EMPIRICAL COMPUTER § 101 SUMMARY



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ELIGIBILITY HIGHLIGHTS POST *ALICE*

- **Summarize, Analogize, and Euthanize (SAE)**
  - **Is this the Federal Circuit's normal process? (*e.g., Nantworks*)**
  - **Recent trend to skip analogize step when functional claiming**
- **The difference between step 1 and step 2:**
  - **"Step one focuses on the legal issue of the meaning of the claims and specification (and prosecution history if pertinent), which at least typically 'can be answered based on the intrinsic evidence,' *CardioNet*, 955 F.3d at 1372; id. at 1373–74, whereas step two focuses on often-factual issues of real-world knowledge and practices (within the important legal constraints on what constitutes a qualifying inventive concept, such as not itself being an abstract idea), *see BSG*, 899 F.3d at 1290; *Berkheimer*, 881 F.3d at 1367–68." (*GoTV Streaming v. Netflix*)**

ELIGIBILITY HIGHLIGHTS (cont'd)

- **Jury instructions - *Ollnova Technologies Ltd. v. ecobee Technologies***
  - The court found error in a jury instruction that asked the jury to decide whether a claim recited an inventive concept without being instructed on whether the claim was even directed to an abstract idea. The court stated that "this Court's precedent evaluates the alleged inventive concept at step two in light of the abstract idea identified at step one."
  - By failing to identify the abstract idea, the jury was permitted "to treat the abstract idea itself as supplying the inventive concept."
  - The court held, "the jury should be instructed as to the abstract idea and informed that the abstract idea cannot supply the inventive concept."
  - But, what about *DDR*? The court distinguished DDR, stating the court there had "identified various characterizations of the abstract idea" and then proceeded to step two because "under any of those characterizations of the abstract idea, the … claims satisfy … step two." In *DDR*, it seems that the court there was more persuaded by the claims reciting a technical solution to a technical problem rather than considering whether the inventive concept was subsumed within any abstract idea.

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1:**
  - An idea itself is not patentable. "[A]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." (*Alice*)
  - Lack of technical details in specification, and broad, functional, pre-emptive claim limitations shows claim "directed to" an abstract idea. (*Chargepoint v. Semaconnect*)
  - Prior art: (1) analysis of advancement over prior art and (2) prior art is used to show fundamental economic process or mathematical concept. (*Simio*)
    - Key sources – specification, prosecution history, admissions, extrinsic prior art?
  - Does the claim improve functioning of the computer itself? (*Enfish, Finjan*)
  - Does the claim recite technical solution to technical problem? (*Enfish*) Also, specific implementation for specific solution? (*McRO* ("specific process"), *Vanda Pharms, Data Engine, but see BSG Tech*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd):**
  - **Is conventionality considered at step one or not?**
    - ❑ **"We caution parties and tribunals not to conflate the separate novelty and obviousness inquiries under 35 U.S.C. §§ 102 and 103, respectively, with the step one inquiry under § 101." (*PowerBlock Holdings v. iFit*)**
    - ❑ **BUT, see *Trustees of Columbia Univ. v. Gen Digital,* "claims that recite something 'already routine and conventional' are not sufficient.'" (citing *GoTV*); *Rensselaer PolyTechnic Inst. V. Amazon* (citing *CareDx*), "[w]e have also 'repeatedly analyzed conventionality at step one....'"**

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd):**
  - **"'In cases involving software innovations, [the step-one] inquiry often turns on whether the claims focus on specific asserted improvements in computer capabilities or instead on a process or system that qualifies [as] an abstract idea . . . .' 'While the § 101 inquiry must focus on the language of the asserted claims themselves,' the claim itself need not explicitly recite the improvement. Rather, our precedent supports a variety of analytical approaches including, for example, (1) looking to the written description to understand the problem facing the inventor and what the patent describes as the invention; (2) considering whether any technological improvement is 'embodied in the claims'; and (3) analyzing whether the claims and written description 'describe how [the] improvement was accomplished.'" (*US Patent No. 7,679,637 v. Google*) (citations omitted)**

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd):**
  - "On one side of the line (requiring a determination favoring the patent challenger at step one) are claims that simply call for the use of computers and networks as tools to carry out an abstract idea, using their ordinary functions without specific hardware or process advances in those functions—*e.g.*, receiving inputs, storing and retrieving, processing, outputting (including displaying), and transmitting. On the other side of the line (ending the Alice inquiry, without proceeding to step two) are claims that call for a concrete asserted improvement in how those functions are carried out, which requires more than result-focused functional language and more than just using those functions in the context of specifically identified content." (*GoTV Streaming v. Netflix*)
  - (1) "a longstanding or fundamental human practice" is directed to an abstract idea; (2) "the steps of obtaining, manipulating, and displaying data, particularly when claimed at a high level of generality" is an abstract idea; and (3) "result-focused functional language, containing no specificity about how the purported invention achieves those results" is an abstract idea. (*GoTV Streaming v. Netflix*)
  - Narrowing an abstract idea to a particular use or environment "remains an abstract idea." (*GoTV Streaming v. Netflix*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd):**
  - Does a functional claim mean the claim recites an abstract idea? *10Tales v. Tiktok* (nonprecedential) suggests exactly that. This is a recent trend.
    - "'As reflected repeatedly in our cases,' claims can be 'abstract' under step one when they lack the 'specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it."
    - "The claim itself 'must identify "how" that functional result is achieved by limiting the claim scope to structures specified at some level of concreteness....'"
    - Because the claim was result oriented, the court held that "the claim is drawn to the underlying idea itself, i.e., presenting personalized content to a user based on information about the user."
  - Data analysis/manipulation claims are having a very difficult time (*e.g., Electric Power Group; AGI SureTrack LLC, v. Farmers Edge Inc.*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd) - EXAMPLES OF ABSTRACT IDEAS:**
  - Fundamental economic process (*Bilski, Alice* ("we need not labor to delimit the precise contours of the 'abstract ideas' category in this case. It is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here."))
  - Mental processes (could a calculation be done in someone's head? Does the Fed. Cir. have a complexity limit like the USPTO?) (*Benson, Trinity Info Media*)
  - Method of organizing human activity (*Rideshare Displays*)
  - Data gathering, analysis, and display (*Elec. Pwr. Group….*)
  - Partitioning cells to be presented as a spreadsheet (*Data Engine*)
  - Manually tracking modifications across multiple spreadsheets (*Data Engine)*
  - Communication over a network for interacting with a device (*Chargepoint*)
  - Delivering targeted advertising (*Customedia, Free Stream Media*)
  - Controlling access to, or limiting permission to, resources (*Ericsson*)
  - Tailoring information to a user's characteristics, such as location (*British Telecom*)
  - Filtering content (*Bascom*)
  - Format conversion (*Adaptive streaming*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd) - EXAMPLES OF ABSTRACT IDEAS:**
  - Using graphics instead of programming to create object-oriented simulations (*Simio*)
  - Redeeming loyalty points for rewards (*CXLoyalty*)
  - Using one digital image and enhance it with another (*Yu*)
  - Each of the following: (1) Using content-based identifier, (2) comparing this identifier against other values, and (3) data-management (*e.g.*, controlling access to data items, retrieving data items, and marking data for deletion) (*Personalweb*).
  - Automation of manual processes using generic computers (*Personalweb*).
  - Authentication (*USR, CosmoKey*)
  - Creating a travel log (*Weisner*)
  - Encoding and decoding image data and converting formats are each abstract ideas (*Hawk Tech.*)
  - Providing information based on meeting a condition, *e.g.*, matching a GPS location indication with a geographic location (*Sanderling Management*)
  - Extracting and transferring information from a design file to a manufacturing machine (*Ficep Corp.*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd) - EXAMPLES OF ABSTRACT IDEAS:**
  - Manipulating information using compression (*Realtime Data*)
  - Improving a user's experience without more (*Mobile Acuity*, *Customedia, Simio*)
  - Creating the appearance of movement, i.e., animation (*Plotagraph*)
  - Interacting with data objects on the WWW (*Eolas*)
  - Allowing/disallowing a bet based on where someone is located (*Beteiro*)
  - Performing a background check (*Miller*)
  - Arranging content in a particular order (*Broadband ITV*)
  - Collecting and using viewing history data to recommend categories of video content (*Broadband ITV*)
  - Identifying users in photos (e.g., tagging); determining associations between the users, photos, and other descriptive information; and storing an association between a user id and a photo id (*Angel Techs. Grp.*)
  - Recording authentication information—such as the customer's name, address, and telephone number—and including that information in a subsequent communication with the customer (*Elec. Commun. Techs.*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd) - EXAMPLES OF ABSTRACT IDEAS:**
  - Selecting a fishing hook based on observed water conditions (*In re Rudy*)
  - Communicating information wirelessly (*Chamberlain Grp.*)
  - Rules for playing a dice game (*In re Marco Guldenaar Holding*)
  - Encoding and decoding image data (*RecogniCorp*)
  - Collecting, displaying, and manipulating XML data (*Intellectual Ventures v. Capital One*)
  - Providing out-of-region access to regional broadcast content (*Affinity Labs v. DirectTV*)
  - Delivering user-selected media content to portable devices (*Affinity Labs v. Amazon*)
  - Rules for playing a wagering game (*In re Smith*)
  - Use of conventional web browser navigational functions without data loss in an online form (*Internet Patents Corp.*)
  - Pricing a product for sale (*OIP Techs*)
  - Organizing information through mathematical correlations (*Digitech Image Techs*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd) - EXAMPLES OF ABSTRACT IDEAS:**
  - Improving image quality by adjusting various aspects of an image (*Longitude Licensing)*
  - Scheduling of live events using machine learning (*Recentive Analytics*)
  - Generating an optimized TV network map using machine learning (*Recentive Analytics*)
  - Determining the location of a mobile device by collecting data about known locations, organizing that data in a database, and then comparing the data to measurements from the mobile device (*Geoscope Tech*)
  - Determining taxability status of aircraft (*Aviation Capital Partners)*
  - Depositing a check using a mobile device (*USAA v. PNC* I & II)
  - Mathematical formula (*Benson*, *Flook*, *Optis Cellular*)
  - Encoding and decoding data - converting formats (*DirectPacket*)
  - Discovering and publishing clearing prices of commodities within exchange markets (*In re Healy*)
  - Receiving, manipulating, and decoding data (*Technology in Ariscale*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd) - EXAMPLES OF ABSTRACT IDEAS:**
  - Allowing asynchronous review of web-conferencing presentations (*US Pat. No. 7,679,637 v. Google*)
  - Sharing content using a unique identifier by matching the unique identifier with a location (*Q Technologies v. Walmart*)
  - Tailoring content to a device's capabilities: "a template set of specifications—generic in at least some respects (claim 1 requires only two such respects)—that can be tailored (in at least one respect) for final production of the specified product (here an image) to fit the user's constraints." (*GoTV Streaming v. Netflix*)
  - "Generic use of AI without other parameters, such as 'improving the mathematical algorithm or making machine learning better,' is abstract." (*Rensselaer Polytechnic Inst. v. Amazon*)
  - "Virus screening is well-known and constitutes an abstract idea." (*Trustees of Columbia Univ. v. Gen Digital*)
  - "Comparing data against a model (created using different computers) to determine if it is anomalous." (*Trustees of Columbia Univ. v. Gen Digital*)
  - "Optimizing a constellation for PD capacity." (*Constellation Designs*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 1 (cont'd) - EXAMPLES OF ABSTRACT IDEAS:**
  - "Adding a communication-suppression function to a phone." (*TJTM Tech*)

ELIGIBILITY HIGHLIGHTS (cont'd)

- **STEP 2:**
  - **Does the claim improve the functioning of the computer itself? (*Alice*)**
  - **Are conventional elements arranged in a nonconventional way? (*BASCOM*)**
  - **Well understood, routine, and conventional is fact question affecting pre-trial motions. (*Berkheimer*)**
  - **Does the claim recite technical solution to technical problem? (*DDR, Enfish*) Also, specific implementation for specific solution? (*Vanda Pharms*, *Data Engine*, but see *BSG Tech*)**

ELIGIBILITY HIGHLIGHTS (cont'd)

- **Other issues:**
  - **Is claim functional? (*Elec. Power, Two-way Media*)**
  - **Is the claim preemptive? (*Ariosa, Return mail, but see MCRO*)**
  - **Business method patents do not fare well at the Fed. Cir.**
  - **Patents have a presumption of validity in § 101 challenges (*Cellspin*)**
  - **Do *American Axle*, *Yu*, and *USR* signal a new direction?**

Electric Power Group

Line of Cases

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Electric Power Group Line of Cases

- Federal Circuit's weapon of choice for invalidating patents under § 101
- Collecting information, analyzing information, and displaying results is an abstract idea
- The Federal Circuit has steadily expanded its use
- Used to invalidate data analysis/manipulation claims, including:
  - Artificial intelligence, such as machine learning (*e.g.*, *Recentive*)
  - Business methods, such as the *Trading Technologies* cases
  - Mental steps/organizing human activity
- <u>Both patent drafters and litigators need to keep this case in mind</u>

ELECTRIC POWER GROUP, LLC v. ALSTOM S.A. (Fed. Cir. 2016)

- **Outcome: claims invalid**
- **Procedure: district court granted summary judgment**
- **Technology:**
  - **Systems and methods for performing real-time performance monitoring of an electric power grid by collecting data from multiple data sources, analyzing the data, and displaying the results.**

ELECTRIC POWER GROUP, LLC v. ALSTOM S.A. (cont'd)

12. A method of detecting events on an interconnected electric power grid in real time over a wide area and automatically analyzing the events on the interconnected electric power grid, the method comprising:

receiving a plurality of data streams, each of the data streams comprising sub-second, time stamped synchronized phasor measurements wherein the measurements in each stream are collected in real time at geographically distinct points over the wide area of the interconnected electric power grid, the wide area comprising at least two elements from among control areas, transmission companies, utilities, regional reliability coordinators, and reliability jurisdictions;

receiving data from other power system data sources, the other power system data sources comprising at least one of transmission maps, power plant locations, EMS/SCADA systems;

receiving data from a plurality of non-grid data sources;

detecting and analyzing events in real-time from the plurality of data streams from the wide area based on at least one of limits, sensitivities and rates of change for one or more measurements from the data streams and dynamic stability metrics derived from analysis of the measurements from the data streams including at least one of frequency instability, voltages, power flows, phase angles, damping, and oscillation modes, derived from the phasor measurements and the other power system data sources in which the metrics are indicative of events, grid stress, and/or grid instability, over the wide area;

displaying the event analysis results and diagnoses of events and associated ones of the metrics from different categories of data and the derived metrics in visuals, tables, charts, or combinations thereof, the data comprising at least one of monitoring data, tracking data, historical data, prediction data, and summary data;

displaying concurrent visualization of measurements from the data streams and the dynamic stability metrics directed to the wide area of the interconnected electric power grid;

accumulating and updating the measurements from the data streams and the dynamic stability metrics, grid data, and non-grid data in real time as to wide area and local area portions of the interconnected electric power grid; and

deriving a composite indicator of reliability that is an indicator of power grid vulnerability and is derived from a combination of one or more real time measurements or computations of measurements from the data streams and the dynamic stability metrics covering the wide area as well as non-power grid data received from the non-grid data source.

ELECTRIC POWER GROUP, LLC v. ALSTOM S.A. (cont'd)

- **Step one:**
  - **"The focus of the asserted claims, as illustrated by claim 12 quoted above, is on collecting information, analyzing it, and displaying certain results of the collection and analysis. We need not define the outer limits of 'abstract idea,' or at this stage exclude the possibility that any particular inventive means are to be found somewhere in the claims, to conclude that these claims focus on an abstract idea—and hence require stage-two analysis under § 101."**

ELECTRIC POWER GROUP, LLC v. ALSTOM S.A. (cont'd)

- **Step one (cont'd):**
  - **"Accordingly, we have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas."**
  - **"In a similar vein, we have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category."**
  - **"And we have recognized that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis."**

ELECTRIC POWER GROUP, LLC v. ALSTOM S.A. (cont'd)

- **Step one (cont'd):**
  - **"Here, the claims are clearly focused on the combination of those abstract-idea processes. The advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions. They are therefore directed to an abstract idea."**
- **Step two:**
  - **"More particularly, a large portion of the lengthy claims is devoted to enumerating types of information and information sources available within the power-grid environment. But merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas."**

ELECTRIC POWER GROUP, LLC v. ALSTOM S.A. (cont'd)

- **Step two (cont'd):**
  - **"[T]he claims' invocation of computers, networks, and displays does not transform the claimed subject matter into patent-eligible applications. The claims at issue do not require any nonconventional computer, network, or display components, or even a 'non-conventional and non-generic arrangement of known, conventional pieces,' but merely call for performance of the claimed information collection, analysis, and display functions 'on a set of generic computer components' and display devices."**

CASES FOLLOWING *ELECTRIC POWER GROUP*

- ***TDE Petroleum Data Solutions Inc. v. AKM Enterprise Inc.***
  - **As we recently reiterated in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016), claims generally reciting 'collecting information, analyzing it, and displaying certain results of the collection and analysis' are 'a familiar class of claims 'directed to' a patent-ineligible concept.' Claim 1 of the '812 patent recites all but the 'displaying' step. Therefore, it is evident from our precedent that claim 1 is the sort of data gathering and processing claim that is directed to an abstract idea under step one of the *Alice* analysis.**

CASES FOLLOWING *ELECTRIC POWER GROUP* (cont'd)

- ***FairWarning IP, LLC v. Iatric Systems, Inc.***
  - **"We have explained that the 'realm of abstract ideas' includes 'collecting information, including when limited to particular content.' *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir.2016) (collecting cases). We have also 'treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.'... Here, the claims are directed to a combination of these abstract-idea categories. Specifically, the claims here are directed to collecting and analyzing information to detect misuse and notifying a user when misuse is detected."**

CASES FOLLOWING *ELECTRIC POWER GROUP* (cont'd)

- ***West View Research, LLC v. Audi AG* (nonprecedential)**
  - **The Federal Circuit found a claim abstract that recited "a 'computerized apparatus capable of interactive information exchange with a human user' via 'a microphone,' 'one or more processors,' a 'touch-screen input and display device,' a 'speech synthesis apparatus' with 'at least one speaker,' an 'input apparatus,' and a 'computer program' that receives the user's input and generates an audible or visual result" which also included a limitation "that allows the results to be wirelessly transmitted to a user's 'portable personal electronic device.'"**
- ***Two-Way Media Ltd. v. Comcast Cable Comms, LLC***
  - **The Federal Circuit found an invention abstract that streamed audio/visual data over a communications system because it was directed to "functional results" and "did not sufficiently describe how to achieve these results" by claiming "(1) sending information, (2) directing the sent information, (3) monitoring the receipt of the sent information, and (4) accumulating records about receipt of the sent information."**

VOIT TECH'S, LLC v. DEL-TON, INC., (Fed. Cir. 2019) (nonprecedential)

- **Outcome: claims invalid**
- **Procedure: district court granted motion to dismiss**
- **Step one:**
  - **The Asserted Claims are directed to the abstract idea of entering, transmitting, locating, compressing, storing, and displaying data (including text and image data) to facilitate the buying and selling of items. See '412 patent col. 11 ll. 5−53 (reciting, in claim 1,2 the process of, inter alia, (1) entering "text[ ] ... and image information" into a remote data terminal, (2) "data-compressing the image data," (3) "receiving" the text and image data, creating multiple "unique records" before "storing," "locating" and "transmitting" the text and image data separately, (4) "decompressing the images ... at the ... remote data terminal," and (5) "displaying the de-compressed images along with textual information").**

VOIT TECH'S, LLC v. DEL-TON, INC., (cont'd)

- **Step one (cont'd):**
  - **The Court considered the claims analogous to those in *Electric Power Group v. Alstom* and *In re TLI*, because those had claims to "collect[ ]," "analyz[e]," and "display[ ]" information and to "transmit[ ]" digital images, respectively.**
  - **Further, "that claims 'purporting to improve the functioning of the computer ... might not succumb to the abstract idea exception,'…'Voit's broad assertion that the Asserted Claims 'allow[ed] more rapid transmission of higher resolution digital images' via 'advanced image data compression' is unsupported."**

VOIT TECH'S, LLC v. DEL-TON, INC., (cont'd)

- **Step Two:**
  - **"Voit has to do more than simply restate the claim limitations and assert that the claims are directed to a technological improvement without an explanation of the nature of that improvement."**
  - **"General statements of 'advanced image data compression' or faster communications will not suffice where it is unclear how the different compression format claim limitations actually achieve the alleged improvements."**

UNIV. OF FLA. RESEARCH FOUND., INC. v. GEN. ELEC. (Fed. Cir. 2019)

- **Outcome: claims invalid**
- **Procedure: district court granted motion to dismiss**
- **Technology:**
  - **System for integrating a patient's physiologic data from at least one bedside machine.**
- **Step one:**
  - **"At *Alice* step one, [the district court] determined the claims are directed to the abstract idea of 'collecting, analyzing, manipulating, and displaying data.'"**
  - **"According to the '251 patent, '[m]ost health care facilities ... acquire bedside patient information using pen and paper methodologies, such as flowsheets and patient charts… [and] [p]ortions of these flowsheets,' it teaches, 'can be manually entered into information systems to preserve patient information for administrative and research purposes.'"**

UNIV. OF FLA. RESEARCH FOUND., INC. v. GEN. ELEC. (cont'd)

- **Step one (cont'd):**
  - **"Accordingly, the '251 patent proposes replacing the 'pen and paper methodologies' with 'data synthesis technology' in the form of 'device drivers written for the various bedside machines' that allow the bedside device to present data from the various bedside machines 'in a configurable fashion within a single interface.'"**
  - **"On its face, the '251 patent seeks to automate 'pen and paper methodologies' to conserve human resources and minimize errors. This is a quintessential 'do it on a computer' patent: it acknowledges that data from bedside machines was previously collected, analyzed, manipulated, and displayed manually, and it simply proposes doing so with a computer."**

UNIV. OF FLA. RESEARCH FOUND., INC. v. GEN. ELEC. (cont'd)

- **Step one (cont'd):**
  - **The claimed 'receiving physiologic treatment data from at least two bedside machines' employs 'any serial connection ... that can convey information as a serial data stream,' including the 'RS-232 connector' used in prior art bedside devices."**
  - **"The claimed 'programmatic action involving said machine-independent data' can be performed using '[a]ny kind of computer system or other apparatus,' including a 'general-purpose computer system.'"**
  - **UFRF argued the claims improved the computer's function because the "claimed 'converting said physiologic treatment data from a machine specific format into a machine independent format within a computing device remotely located from said bedside machines' relies on 'a driver for each different bedside machine' that 'can interpret device specific protocols for data streams of the bedside machine.'"**

UNIV. OF FLA. RESEARCH FOUND., INC. v. GEN. ELEC. (cont'd)

- **Step one (cont'd):**
  - **"Neither the '251 patent, nor its claims, explains how the drivers do the conversion that UFRF points to. That is, the drivers are described in purely functional terms"**
  - **"The '251 patent nowhere identifies, and we cannot see in the claims, any 'specific improvement to the way computers operate.'"**
- **Step two:**
  - **"The '251 patent claims fare no better at *Alice* step two. UFRF argues the claims recite more than 'well-understood, routine, conventional activit[ies]' because the claimed 'converting' takes place at a location remote from the bedside machines."**
  - **"Here, the claims do no 'more than simply instruct the practitioner to implement the abstract idea ... on a generic computer.'"**

IN RE KILLIAN (Fed. Cir. 2022)

- **Outcome: Claims invalid**
- **Procedure: Appeal from PTAB**
- **Technology:**
  - **System for determining eligibility for Social Security Disability Benefits through a computer network.**
- **Step one:**
  - **The claims "are directed to the patent-ineligible abstract mental process of 'a search algorithm for identifying people who may be eligible for SSDI benefits they are not receiving.'"**
  - **"We have held that mental processes are abstract ideas…."**
  - **"So too, here, Mr. Killian's claims must fail Alice/ Mayo step one as they are directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner."**

IN RE KILLIAN (cont'd)

- **Step two:**
  - **"The additional steps in representative claim 1 do no more than instruct the practitioner to perform the abstract steps of gathering information, determining if a person is receiving benefits or is eligible for benefits under the law, and displaying the results of that analysis, all on a generic computer."**
  - **"As in *Electric Power Group*, 830 F.3d at 1355, the claims here do not detail how the computer should go about determining eligibility for benefits, beyond saying that the computer should determine eligibility based 'on the identified information' and 'current SSDI benefit legal requirements.'"**

AI VISUALIZE v. NUANCE COMMS. (Fed. Cir. 4/4/2024)

- **Outcome: Invalid**
- **Procedure: Motion to dismiss**
- **Technology:**
  - **Visualization of medical scans.**
- **Step one:**
  - **"Here, [one set of] claims … recite a system that includes the functionally-oriented steps of: *storing* data (VVD) on a server, *accepting* user requests to view a portion of that data (virtual views), *checking* for the location of all data needed for the virtual view, "*creating*" image frames from any non-locally-stored virtual view data, *transmitting* all non-locally-stored image frames to the user, *compiling* all image frames, and sequentially *displaying* the image frames to the user."**

AI VISUALIZE v. NUANCE COMMS. (cont'd)

- **Step one (cont'd):**
  - **The other claims "involve transmitting two versions of all frames—initial, low-quality versions followed by higher quality versions—from the server to the user. Id. at claim 22. In other words, the asserted claims are directed to converting data and using computers to collect, manipulate, and display the data."**
  - **"AI Visualize argues that the claims are not directed to an abstract idea because the claims require the *creation* of 'on the fly' virtual views at a client computer.… But the claim language makes clear that virtual view 'creation' is achieved by the manipulation of a portion of the existing VVD.… [T]his 'creation' of a virtual view from the existing VVD, recited in general terms, is abstract data manipulation."**

AI VISUALIZE v. NUANCE COMMS. (cont'd)

- **Step two:**
  - **"AI Visualize's amended complaint has not made sufficient factual allegations to support that the claims involve unconventional technology or a concrete application of the abstract idea of virtual view 'creation.' AI Visualize's claim that the 'virtual views' are created 'on the fly,' without more, cannot support patent eligibility at *Alice* step two."**
  - **"AI Visualize's amended complaint also failed to adequately allege an inventive concept in the ordered combination of claim limitations."**

RECENTIVE ANALYTICS v. FOX CORP., et al. (Fed. Cir. 4/18/2025)

- **Outcome: Invalid**
- **Procedure: Motion to Dismiss**
- **Technology:**
  - **'367 patent: Scheduling of live events using machine learning**
  - **'811 patent: Generating an optimized TV network map for broadcasters using machine learning**

RECENTIVE ANALYTICS v. FOX CORP (cont'd)

- **'367 patent claim 1:**

A computer-implemented method of dynamically generating an event schedule, the method comprising:

receiving one or more event parameters for series of live events, wherein the one or more event parameters comprise at least one of venue availability, venue locations, proposed ticket prices, performer fees, venue fees, scheduled performances by one or more performers, or any combination thereof;

receiving one or more event target features associated with the series of live events, wherein the one or more event target features comprise at least one of event attendance, event profit, event revenue, event expenses, or any combination thereof;

providing the one or more event parameters and the one or more target features to a machine learning neural network ML model and a support vector ML model;

iteratively training the ML model to identify relationships between different event parameters and the one or more event target features using historical data corresponding to one or more previous series of live events, wherein such iterative training improves the accuracy of the ML model;

receiving, from a user, one or more user-specific event parameters for a future series of live events to be held in a plurality of geographic regions;

receiving, from the user, one or more user-specific event weights representing one or more prioritized event target features associated with the future series of live events;

providing the one or more user-specific event parameters and the one or more user-specific event weights to the trained ML model;

generating, via the trained ML model, a schedule for the future series of live events that is optimized relative to the one or more prioritized event target features;

detecting a real-time change to the one or more user-specific event parameters;

providing the real-time change to the trained ML model to improve the accuracy of the trained ML model; and

updating, via the trained ML model, the schedule for the future series of live events such that the schedule remains optimized relative to the one or more prioritized event target features in view of the real-time change to the one or more user-specific event parameters.

RECENTIVE ANALYTICS v. FOX CORP (cont'd)

- **'811 patent claim 1:**

A computer-implemented method for dynamically generating a network map, the method comprising:

receiving a schedule for a first plurality of live events scheduled to start at a first time and a second plurality of live events scheduled to start at a second time;

generating, based on the schedule, a network map mapping the first plurality of live events and the second plurality of live events to a plurality of television stations for a plurality of cities,

wherein each station from the plurality of stations corresponds to a respective city from the plurality of cities,

wherein the network map identifies for each station (i) a first live event from the first plurality of live events that will be displayed at the first time, and (ii) a second live event from the second plurality of live events that will be displayed at the second time, and

wherein generating the network map comprises using a machine learning technique to optimize an overall television rating across the first plurality of live events and the second plurality of live events;

automatically updating the network map on demand and in real time based on a change to at least one of (i) the schedule and (ii) underlying criteria;

wherein updating the network map comprises updating the mapping of the first plurality of live events and the second plurality of live events to the plurality of television stations; and

using the network map to determine for each station (i) the first live event from the first plurality of live events that will be displayed at the first time and (ii) the second live event from the second plurality of live events that will be displayed at the second time.

RECENTIVE ANALYTICS v. FOX CORP (cont'd)

- **Step one:**
  - **Recentive admitted that generating network maps had been done manually for many years. They also admitted that the patents "do not claim the machine learning technique itself" but instead claim "the application of the machine learning technique to the specific context[s]" of event scheduling an network map creation.**
  - **"This case presents a question of first impression: whether claims that do no more than apply established methods of machine learning to a new data environment are patent eligible. We hold that they are not."**

RECENTIVE ANALYTICS v. FOX CORP (cont'd)

- **Step one (cont'd):**
  - **Did the court raise the bar for software patents? "In the context of software patents (which includes machine learning patents), the step-one inquiry determines 'whether the claims focus on "the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an abstract idea for which computers are invoked merely as a tool."'" (The case to which the court cites provides no such ultimatum ("this inquiry often turns on")).**
  - **"Both sets of patents rely on the use of generic machine learning technology in carrying out the claimed methods for generating event schedules and network maps."**
  - **"The machine learning technology described in the patents is conventional, as the patents' specifications demonstrate."**
  - **"The patents additionally employ only generic computing machines and processors."**

RECENTIVE ANALYTICS v. FOX CORP (cont'd)

- **Step one (cont'd):**
  - **"The requirements that the machine learning model be 'iteratively trained' or dynamically adjusted in the Machine Learning Training patents do not represent a technological improvement. Recentive's own representations about the nature of machine learning vitiate this argument: Iterative training using selected training material and dynamic adjustments based on real-time changes are incident to the very nature of machine learning."**
  - **"Recentive argues in its briefs that its application of machine learning is not generic because 'Recentive worked out how to make the algorithms function dynamically, so the maps and schedules are automatically customizable and updated with real-time data,' Appellant's Reply Br. 2, and because 'Recentive's methods unearth "useful patterns" that had previously been buried in the data, unrecognizable to humans,' id. (internal citation omitted). But Recentive also admits that the patents do not claim a specific method for 'improving the mathematical algorithm or making machine learning better.'"**

RECENTIVE ANALYTICS v. FOX CORP (cont'd)

- **Step one (cont'd):**
  - "Even if Recentive had not conceded the lack of a technological improvement, neither the claims nor the specifications describe how such an improvement was accomplished. That is, the claims do not delineate steps through which the machine learning technology achieves an improvement."
  - "[T]he only thing the claims disclose about the use of machine learning is that machine learning is used in a new environment. This new environment is event scheduling and the creation of network maps."
  - "Recentive's argument that its patents are eligible simply because they introduce machine learning techniques to the fields of event planning and creating network maps directly conflicts with our § 101 jurisprudence."
  - "Finally, the claimed methods are not rendered patent eligible by the fact that (using existing machine learning technology) they perform a task previously undertaken by humans with greater speed and efficiency…. We have consistently held" that such claims are not patent eligible."

RECENTIVE ANALYTICS v. FOX CORP (cont'd)

- **Step two:**
  - **"Recentive claims that the inventive concept in its patents is 'using machine learning to dynamically generate optimized maps and schedules based on real-time data and update them based on changing conditions.'… Such a position plainly fails to identify anything in the claims that would 'transform' the claimed abstract idea into a patent-eligible application.'"**

2025 *ELECTRIC POWER GROUP* FLURRY

Longitude Licensing v. Google (Fed. Cir. 4/30/25) (nonprecedential)

- **"At *Alice* step one, the district court held that the claims are drawn to the abstract idea of 'improving image quality by adjusting various aspects of an image based on features of the main object in the image.' Dismissal at *1. We agree."**
- **"We have repeatedly held that claims that organize, alter, or manipulate data, without more, are patent ineligible….Claims that merely implement longstanding activities and mental processes using new data and generic computing components without explaining how these arrangements actually result in the claimed improvement are similarly directed to unpatentable abstract ideas."**

2025 *ELECTRIC POWER GROUP* FLURRY (cont'd)

Geoscope Tech v. Google (Fed. Cir. 5/2/25) (nonprecedential)

- **The claims determine "the location of a mobile device by collecting data about known locations…, organizing that data in a database, and then comparing that data to measurements from the mobile device.… These claims … fail *Alice* step one because they simply require collecting, comparing, and reporting data using conventional components…. As we have repeatedly emphasized, claims directed to 'collecting information, analyzing it, and displaying certain results of the collection and analysis," without more, are impermissibly abstract.'**
- **The fact that the asserted claims of the '753 patent relate to a particular type of information—data about location —does not remove them from the realm of the abstract.**

2025 *ELECTRIC POWER GROUP* FLURRY (cont'd)

Aviation Capital Partners v. Specialized Tax (Fed. Cir. 5/6/25) (nonprecedential)

- **The court agreed with the district court: "the [claims] are directed to an abstract idea of 'collecting aircraft-related data from multiple sources and using an algorithm to improve ... what can be gleaned from the data, and then referring to yet another database about taxation to determine the taxability status.' … The court determined that the abstract idea is akin to that in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016). The court determined that even if the asserted claims are directed to determining taxability status as STR argued, that is also an abstract idea. Id. The court noted that determining a taxability status "is simply a matter of referring to various tax codes, and using a computer to make this easier does not make it less abstract." Id.**

2025 *ELECTRIC POWER GROUP* FLURRY (cont'd)

USAA v. PNC I & II (Fed. Cir. 6/12/25)(precedential and nonprecedential)

- In two companion cases, the Federal Circuit considered the patent eligibility of four patents dealing with depositing a check using a mobile device. The district court held that the patents were not directed to an abstract idea. The Federal Circuit disagreed.
- In both cases, the Federal Circuit found that depositing a check using a mobile device was an abstract idea, relying on *EPG*.
- The Federal Circuit also found that the claims were drafted in a "result-oriented fashion."
- At Alice step two, the Federal Circuit found no inventive concept because "computer-mediated implementation of routine or conventional activity is not enough to provide an inventive concept."

2025 *ELECTRIC POWER GROUP* FLURRY (cont'd)

Cascades Branding v. Aldi (Fed. Cir. 9/25/25) (nonprec.)

- The technology: displaying images reflecting different brands on a user's phone. Upon selecting a brand (with no other input), the phone displays a map of the surrounding area to show the user where that brand's products can be purchased.
- Claims were functionally drafted.
- At *Alice* step one, the court held that the claims were directed to "collecting geographic information about the location of a device and nearby stores...offering certain products...and displaying that information to the user....We generally hold claims directed to nothing more than collecting, analyzing, and displaying information, even when limited to a particular field...to be abstract." The court then referred to EPG's alternative use of striking down functionally drafted claims and stated "the claims here are substantively indistinguishable."
- At *Alice* step 2, the patent owner argued that the claims recited an inventive step because the specification distinguished three prior art techniques. The court disagreed: "the highly generic functional steps...do not contain an inventive step beyond preexisting and conventional computer technology." The court also stated, "whatever speed advantage...comes from conventional computer technology itself rather than any inventive step."

SUNOCO PARTNERS V. POWDER SPRINGS LOGISTICS (Fed. Cir. 1/16/2026) (nonprecedential)

- **Outcome: Invalid/valid (invalidity finding discussed below)**
- **Analysis:**

- **The Federal Circuit reviewed three sets of claims directed to blending butane with gasoline at petroleum tank farms, immediately before distribution to tanker trucks. Two of the three sets of claims were found patent eligible because they recite physical systems/processes (*e.g.*, "a tank of gasoline," "a tank of butane," "a blending unit," "a dispensing unit," and "a rack, wherein the dispensing unit is located at the rack and is adapted to dispense gasoline to gasoline transport vehicles").**
- **The specification was well crafted, and the Federal Circuit acknowledged the technological improvements described. Namely, the gasoline and butane blending occurs downstream of their respective storage tanks: "after the gasoline and butane are drawn from their storage tanks for dispensing into a tanker truck, but before the gasoline is actually dispensed to the tanker truck at the rack." The rack is where the tanker truck connects to receive its supply. Also, the blending apparatus can use varying blend ratios to achieve a desired vapor pressure. This provides several benefits, such as forming a blend that does not exceed the maximum allowable vapor pressure.**

SUNOCO PARTNERS V. POWDER SPRINGS LOGISTICS (cont'd)

- **Claim 31 US Pat. No. 7,032,629:**

31. A computer-implemented method for blending a butane stream and a gasoline stream comprising the steps of:

receiving a first measurement indicating a vapor pressure of the gasoline stream;

calculating a blend rate at which the butane stream can be blended with the gasoline stream;

transmitting an instruction to a programmable logic controller for adjusting the butane stream to the calculated blend rate for blending with the gasoline stream and distributing at a rack; and

receiving a second measurement indicating a vapor pressure of the blended gasoline stream and butane stream.

SUNOCO PARTNERS V. POWDER SPRINGS LOGISTICS (cont'd)

- **Analysis claim 31:**
- **Importantly, the preamble recites that the method blends "a butane stream and a gasoline stream." Use of the term "stream" means the butane and gasoline have left their holding tank. *See e.g.*, '629 patent, Abstract. Also, the transmitting step transmits "an instruction to a programmable logic controller for adjusting the butane stream to the calculated blend rate for blending with the gasoline stream and distributing at a rack." It seems that the claim is therefore tied to (or controls) the physical process of blending the butane stream and gasoline stream at varying blend ratios downstream of the storage tanks and before being loaded onto the tanker trucks.**
- **Nevertheless, the Federal Circuit stated: "Claim 31 does not recite the step of blending gasoline and butane; nor does it recite where blending would occur. Rather, claim 31 recites an algorithm that receives measurements, calculates, and transmits an instruction for adjusting a butane stream based on 'receiving' and 'calculating' data."**

SUNOCO PARTNERS V. POWDER SPRINGS LOGISTICS (cont'd)

- **Analysis claim 31 (cont'd):**
- **The court also stated: "The claim's preamble does not save it from abstraction here. We agree that courts must be vigilant against over generalizing what a claim is directed to in an Alice analysis. However, 'we have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.' *Elec. Power Grp., v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Here, the claims recite a method 'of gathering and analyzing information of a specified content [in claim 31], then displaying the results [by generating a report in claim 32], and not any particular assertedly inventive technology for performing those functions. The [claims] are therefore directed to an abstract idea.'"**
- **The Federal Circuit then struck down the claim by holding that it did not recite an inventive concept at *Alice* step two.**
- **In this case, the Federal Circuit made *EPG* the paramount consideration in its analysis, placing it above the physical and temporal limitations that seem to tie the claim to the technological improvements described in the specification. Also, the computer-implemented control process was not patent eligible whereas the underlying physical process was.**

INNOVAPORT V. TARGET (Fed. Cir. 2/6/26) (nonprecedential)

- **Outcome: Invalid**
- **Technology:**
  - **Providing product location information within a store**
- **Step one:**
  - **The representative claim is directed to (1) collecting product information; (2) analyzing it; (3) receiving a product-location inquiry; (4) retrieving product-location information; and (5) presenting the product's location and other information.**
  - **The court readily dismissed the claim's mention of technology, like user interface, database, devices, etc., finding that it was ensnared by *EPG*. Additionally, each of the steps could be performed by a human.**
  - **The patent owner argued that the claims recited the technical advantage of the customer receiving product information in real time and information about related products. But "improving a user's experience while using a computer application is not, without more, sufficient to render the claims directed to an improvement in computer functionality."**

INNOVAPORT V. TARGET (cont'd)

- **Step one (cont'd):**
  - Interestingly, the patent owner mentioned that the claims overcame a § 101 rejection during prosecution, to which the court responded, "courts are not required to defer to Patent Office determinations as to eligibility."
- **Step two:**
  - The court rejected the technological recitations as mere recitation of generic computer components. The court also stated that "'[l]inking two products in a cross-referential manner and providing a recommendation about another product are not inventive concepts because they are merely the abstract ideas."

RENSSELAER POLYTECHNIC INST. V. AMAZON (Fed. Cir. 2/24/26) (nonprecedential)

- **Outcome: Invalid**
- **Technology:**
  - **Natural language processing which is "in the context of this patent, a type of machine learning or artificial intelligence.“**

Note: I consider *Recentive* to be an *EPG* case, and *RPI v. Amazon* follows *Recentive*, but doesn't technically follow *EPG's* rationale. That's why it's in here.

RENSSELAER POLYTECHNIC INST. V. AMAZON (cont'd)

- **Claim: Highly functional and not limited to a computer.**

1. A method for processing a natural language input provided by a user, the method comprising:

providing a natural language query input by the user;

performing, based on the input, without augmentation, a search of one or more language-based databases including at least one metadata database comprising at least one of a group of information types comprising:

case information;

keywords;

information models; and

database values;

providing, through a user interface, a result of the search to the user;

identifying, for the one or more language-based databases, a finite number of database objects; and

determining a plurality of combinations of the finite number of database objects.

RENSSELAER POLYTECHNIC INST. V. AMAZON (cont'd)

- **Step one:**
  - **The court spent pages discussing whether aspects of the claim were conventional at step one! In fact, the court stated, "[w]e have also 'repeatedly analyzed conventionality at step one....'" (But, what about *Powerblock*?)**
  - **The court found the claim was directed to an abstract idea because "the claims largely recite the use of generic technology using standard methods."**
  - **The court also stated that "[g]eneric use of AI without other parameters, such as 'improving the mathematical algorithm or making machine learning better,' is abstract." (citing *Recentive*)**
  - **The court held: "It follows under *Recentive* that in the context of software patents the application of a well-established idea (case-based reasoning or AI) to a novel environment (natural language processing) is abstract at step one of the Alice analysis."**

RENSSELAER POLYTECHNIC INST. V. AMAZON (cont'd)

- **Step one (cont'd) – will new data save you?:**
  - **"Rensselaer argues that at step one, the claims of the '798 patent are different in one respect from the claims we considered in *Recentive* and involve something more than the mere use of AI in natural language processing. The independent claims here recite a 'metadata database, comprising at least one of a group of information types comprising: case information; keywords; information models; and database values.' '798 patent, claims 1, 9, which Rensselaer argues on appeal represents an unconventional technological improvement that renders the claims, as a whole, non-abstract."**

  - **"The use of case information in the claimed database simply involves the use of AI as applied to a new environment and cannot render the claims non abstract under *Recentive*. Nor does the database otherwise involve a non-abstract concept. Our cases suggest that adding new content to a database is insufficient to render claims directed to a database non-abstract."**

RENSSELAER POLYTECHNIC INST. V. AMAZON (cont'd)

- **Step one (cont'd) – will new data save you?:**
  - **"We need not decide the question whether adding non-conventional data to a conventional database is non-abstract here because, here, the remaining information types comprising the claimed database were established to be conventional. The use of a data structure that is 'already routine and conventional' will not render a claim non-abstract."**
- **Step two:**
  - **Having already analyzed conventionality, it was therefore not surprising at step two when the court found that the claim did not provide an inventive concept.**

IN RE MCFADDEN (Fed. Cir. 4/7/26) (nonprecedential)

- **Outcome: Invalid**
- **Technology:**
  - Generating one distribution of information items, then comparing it to a previous distribution of information items, to determine how information should be presented to a consumer
- **Step one:**
  - Interestingly, two claim elements were means-plus-function elements ("means for generating" and "means for computing").
  - "We therefore agree with the Board that the claim is directed to 'advertising, sales, and marketing activity,' or at least the close corollary of packaging and presenting information, which is an abstract idea covering '[c]ertain methods of organizing human activity.'"
  - Then, the court cited to *Mobile Acuity* (an *EPG* case) for the proposition that "claims reciting generalized steps of collecting, analyzing, and presenting information, using nothing other than the conventional operations of generic computer components are directed to abstract ideas."

IN RE MCFADDEN (cont'd)

- **Step two:**
  - **"The claim amounts to simply inputting information into a generic computer and running computations and transformations based on that information, which the Supreme Court and this court have been clear is insufficient to supply an inventive concept."**

- **Comments:**
  - **So, what's so important about this case? Well, for starters, it again shows that *EPG* is the Federal Circuit's weapon of choice for striking down patent claims for lack of patentable subject matter. It also shows the convergence between three abstract idea categories: (1) mental steps/organizing human activity; (2) business methods; and (3) *EPG's* collecting information, analyzing information, and displaying information. In other words, *EPG* is used to strike down all three categories. For example, the *Trading Tech* business method patents were struck down using *EPG*.**

AGI SURETRACK LLC, V. FARMERS EDGE INC. (Fed. Cir. 6/2/26)

- **Outcome: Invalid**
- **Technology:**
  - **Collecting farming operation data using devices attached to farming equipment while the equipment is operating and then processing and sharing the data.**
- **Claim:**
  - **The representative claim is very detailed, spanning almost two pages of the opinion, and is drafted using a lot of technology (*e.g.*, "A relay device for tracking farming operations … comprising: (a) a microprocessor; (b) a bus connector … ; (c) a [GPS] receiver; (d) a memory storage area … ; and (e) an application program comprising programming instructions that … (i) extract content …; (ii) use the extracted content …; and (iv) record the farming operation…."). However, the application program steps are somewhat functionally drafted.**

AGI SURETRACK LLC, V. FARMERS EDGE INC. (cont'd)

- **Step one:**
  - **"[T]he specification describes the claimed invention as a computer-implemented method for gathering and processing farming data."**
  - **"As we have by now frequently held, claims reciting generalized steps of collecting, analyzing, and presenting information, using nothing other than the conventional operations of generic computer components, are directed to abstract ideas."**
  - **The court rejected AGI's argument that its system can detect the communication protocol being used for a particular piece of farm equipment and uses the appropriate "implement profiles" to decode the data because the profiles are "simply a collection of data … that can be used to decode or interpret other data."**

AGI SURETRACK LLC, V. FARMERS EDGE INC. (cont'd)

- **Step one (cont'd):**
  - Further, the court held that using "one set of data (implement profiles) to interpret another set of data … 'merely adds one abstract concept to another.'" (citing *ChargePoint*).
  - The court also held that the claims are not directed to an improvement in "computer functionality but instead invoke the use of generic computer components to collect, analyze, and transmit farming data."
- **Step two:**
  - The court held that the claims "are directed to gathering and analyzing a particular type of data and do not disclose any specific inventive technology for performing those functions." In fact, the claims "rely on generic computer components … which are used in a conventional manner to collect, analyze, and display data."

AGI SURETRACK LLC, V. FARMERS EDGE INC. (cont'd)

- **Comments:**
  - **Claims directed to data analysis/manipulation face an uphill battle at the Federal Circuit. And, merely adding a bunch of technological limitations and details won't save your claim from *EPG* if it's directed to collecting, analyzing, and presenting information.**

ARENDI S.A.R.L. V. OATH HOLDINGS INC., ET AL. (Fed. Cir. 6/4/26) (nonprecedential)

- **Outcome: Invalid**
- **Technology:**
  - Identifying information in a document and using that information to search for related information in an external source, such as a contact database.
  - The district court had found three patents (the ’356, ’854, and ’993 patents) invalid and one patent (the ’843 patent) as satisfying § 101
- **Step one:**
  - The court described the ’356, ’854, and ’993 patent claims as “‘analyzing’ textual information in a document, ‘identifying’ that information as a type that can be searched, ‘using’ that information to search a database or other information source, and ‘performing’ an action based on the retrieved information.”
  - The court summarized these steps as “collecting information, analyzing the collected information, retrieving related information, and using the result.”

ARENDI S.A.R.L. V. OATH HOLDINGS INC., ET AL. (cont'd)

- **Step one (cont'd):**
  - Then, the court dropped the *EPG* bomb, "[w]e have long held that claims directed to 'collecting information, analyzing it, and displaying certain results of the collection and analysis' are abstract." (citing *EPG*).
  - The court also referred to the claims as reciting "functional results."
  - Arendi argued that the "claims improve computer functionality by making it more convenient for users to retrieve information while working in a document." But, the court relied on its oft-used phrase, "improving a user's experience … without more" is insufficient to constitute an improvement to computer functionality.
  - The court stated that the claims "use generic computer functionality as a tool to carry out an abstract information-processing task." (citing *EPG*).

ARENDI S.A.R.L. V. OATH HOLDINGS INC., ET AL. (cont'd)

- **Step one (cont'd):**
  - As to the '843 patent, the court stated that "it recites the same abstract process as the other … patents."
  - The district court had relied upon "beneficial coordination" between two computer programs as rendering the claims patent eligible. But the Federal Circuit disagreed: first, by stating that this feature was not recited in the claims and, second, by stating that even if the feature were implicitly recited, the claims do not describe a concrete improvement in *how* it operates.
- **Step two:**
  - The court found that the '356, '854, and '993 patent claims use "generic computer components performing conventional functions …." And, the court held that Arendi's "purported improvements-facilitating interaction between programs and reducing user steps-simply restate the abstract idea…." The court also stated that that same analysis applies to the '843 patent.

OLLNOVA TECHNOLOGIES LTD. V. ECOBEE TECHNOLOGIES ULC (Fed. Cir. 6/4/26)

- **Outcome: Valid at step one**
- **Technology:**
  - **Wireless communication in building automation systems (BAS)**
- **Jury instructions:**
  - **The court found error in a jury instruction that asked the jury to decide whether a claim recited an inventive concept without being instructed on whether the claim was even directed to an abstract idea. The court stated that "this Court's precedent evaluates the alleged inventive concept at step two in light of the abstract idea identified at step one." By failing to identify the abstract idea, the jury was permitted "to treat the abstract idea itself as supplying the inventive concept." The court held, "the jury should be instructed as to the abstract idea and informed that the abstract idea cannot supply the inventive concept."**

OLLNOVA TECHNOLOGIES LTD. V. ECOBEE TECHNOLOGIES ULC (cont'd)

- **'887 patent claim:**

1. A wireless automation device, comprising:

a transceiver operable to wirelessly communicate packets of information over a wireless network;

a sensor operable to generate a [*sic*] indicator for a sensed condition;

a controller configured to poll the sensor at a polling interval to read the indicator during a current period of the polling interval and to selectively operate the transceiver to communicate information associated reading of the indicator; and

a memory, the controller storing a reading of the indicator during the current period in the memory, where the memory stores at least one prior reading of the indicator, the prior reading of the indicator made during a prior period of the polling interval,

wherein the transceiver is configured to transmit a most recent reading of the indicator stored in the memory during a period of a transmission interval in response to detecting a change in the sensed condition outside a predetermined range and wherein transmission of the most recent reading of the indicator stored in the memory during the period of the transmission interval is suspended in response to detecting a change in the sensed condition within the predetermined range.

OLLNOVA TECHNOLOGIES LTD. V. ECOBEE TECHNOLOGIES ULC (cont'd)

- **'887 patent step one:**
  - **The court found the claim is directed to "a specific technology-based improvement in the operation of a network ... using a 'wireless automation device.'" The court also stated that the claim's limitations "do not merely describe collecting and communicating data in the abstract" but "they recite a particular technique governing *when* and *how* information is transmitted." (emphasis in original).**
  - **Moreover, the claim imposes "timing constraints" and a "conditional trigger."**

OLLNOVA TECHNOLOGIES LTD. V. ECOBEE TECHNOLOGIES ULC (cont'd)

- **'887 patent step one (cont'd):**
  - ***Electric Power Group* distinguished!**
  - ***"In Electric Power Group*, … the claimed invention merely collected data from sensors located across an electric grid, analyzed it, and displayed the results without changing how existing sensors worked, how information was analyzed or transmitted, or how it was displayed."**
  - **"Here, in contrast, the claims recite a particularized set of constraints that alters when and how data is collected and transmitted. The claims are not merely directed to a result, such as 'filtering data' or 'transmitting relevant information,' but to a defined technique for achieving such results. The combination of periodic polling, transmission intervals, and selective transmission upon a threshold being met reflects a particular means for communications within BAS networks rather than a generalized data-handling concept."**

OLLNOVA TECHNOLOGIES LTD. V. ECOBEE TECHNOLOGIES ULC (cont'd)

- **'371 patent claim:**

13. An automation component configured for wireless communication within a building automation system, the automation component comprising:

a wireless communications component;

a processor in communication with the wireless communications component;

a memory in communication with the processor, the memory configured to store computer readable instructions which are executable by the processor;

wherein the computer readable instructions are programmed to:

receive at least one change-of-value update via the wireless communications component, wherein the change-of-value update includes a plurality of change-of-value messages received from a plurality of devices;

storing the at least one change-of-value update corresponding to at least one wireless device; and

communicate the at least one change-of-value update in response to a polling request and repeat the at least one change-of-value update at regular intervals according to a schedule or until a change-of value acknowledgment is received.

OLLNOVA TECHNOLOGIES LTD. V. ECOBEE TECHNOLOGIES ULC (cont'd)

- **'371 patent step one:**
  - **The court stated that this claim "provides a specific manner in which data is transmitted within a BAS system."**
  - **The court also referred to the specification which "confirms that the claimed communication means addresses technical challenges arising in BAS networks."**
  - ***Electric Power Group* distinguished!**
  - **"ecobee's reliance on the same cases involving generalized data analysis and transmission claims it cited against the '887 patent is misplaced. *See* Cross-Appellant Br. 40. Unlike the automation component for a wireless communication system claimed here, those cases did not involve a comparably specific asserted improvement in the operation of an existing technological system. *See, e.g., Elec. Power Grp.*, 830 F.3d at 1354–55; *Chamberlain Grp.*, 935 F.3d at 1346–48; *Affinity Labs*, 838 F.3d at 1258–62."**

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- **'371 patent step one (cont'd):**
  - **The court was persuaded by "the wireless network communications challenges addressed by the inventors and the claimed improvements to device operations."**
- **Comments:**
  - **First, this case is a rarity; the claims survived EPG. Is this the only one? Second, the claims were somewhat functionally drafted. Many other claims of similar breadth were easily struck down by the court. In fact, the court is beginning to use "functionally drafted" as a new abstract-idea category. *See e.g., GoTV Streaming v. Netflix.* And, lastly, the claims here were not very detailed. Yet, they survived. For example, the representative claims above contained 189 and 136 words each, respectively, whereas the EPG representative claim had 394 words.**
  - **The court here was obviously persuaded by the technological challenges that the invention had to overcome, because the opinion described those challenges in detail. Well-crafted specification.**