UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

DOUGLAS MAURICE SHORTRIDGE,

Plaintiff,

v.

FOUNDATION CONSTRUCTION PAYROLL SERVICE, LLC, et al.,

Defendants.

Case No. 14-cv-04850-JCS

ORDER GRANTING DEFENDANTS' MOTION FOR JUDGMENT ON THE PLEADINGS

Re: Dkt. No. 40

I. INTRODUCTION

This case arises from pro se Plaintiff Douglas Shortridge's claim that Defendants Foundation Construction Payroll Service (dba Payroll4Construction.com), Foundation Software, Inc., and Associated Builders and Contractors, Inc. infringed one or more claims of a patent that Shortridge owns, U.S. Patent No. 8,744,933 (the "'933 patent").[1] The '933 patent relates to computer processing of certified payroll records ("CPRs") and other data relevant to public works construction contracts. Defendants move for judgment on the pleadings under Rule 12(c) of the Federal Rules of Civil Procedure, arguing that the '933 patent is invalid for claiming ineligible subject matter under 35 U.S.C. § 101 and the "abstract ideas" exception to eligibility. The Court held a hearing on April 3, 2015. Shortridge's motion for leave to file a surreply (dkt. 60) is GRANTED. The Court deems filed the proposed surreply attached to that motion. For the reasons stated below, Defendants' motion for judgment on the pleadings is GRANTED, and the Clerk is instructed to enter judgment in favor of Defendants.[2]

[1] The '933 patent is available in the record as Exhibit A to the First Amended Complaint (dkt. 21-1) and as Exhibit A to Defendants' Motion (dkt. 41-1). The latter is presented in a format that includes the column and line numbers cited in this Order.

[2] The parties have consented to the jurisdiction of the undersigned magistrate judge for all purposes pursuant to 28 U.S.C. § 636(c).

II. BACKGROUND

A. Public Works Payroll Processing and Management

Government contract construction projects often require context- and jurisdiction-specific minimum wage levels, as well as submission of CPRs documenting compliance. *See* '933 Patent at 1:34−40. Different jurisdictions require different wages, as well as different contents and formats of CPRs. *See id.* at 1:56−63. Certain elements of CPR reporting are universally required for any payroll processing, while others are specific to the public works context and often to certain jurisdictions. *See id.* at 2:41−3:20. The patent at issue refers to the former as "core payroll" and the latter as "public works payroll."

Some clients and/or jurisdictions may also require certain ratios of or limitations on hours performed by apprentices as opposed to journeyman employees. *See id.* at 7:10−19. Certain jurisdictions also require contributions to industry training funds based on the hours worked by employees in those industries. *See* Surreply (dkt. 66) at 4−5.

B. The '933 Patent

1. Overview

The patent at issue in this case concerns a computer-based solution for "an employer who contracts . . . for work under one or more government agencies (jurisdictions) for one or more Public Works projects, or who contracts concurrently on several multi jurisdictional private and Public Works projects to process core payroll." '933 Patent at 9:39−45. The invention, which includes system and method claims, allows the employer to "generate CPRs which meet or exceed the CPR-criteria requirements of any given governmental agency jurisdiction mandate or policy; provide alerts and reports allowing said contractor to anticipate compliance vulnerability and choose real time manpower options; provide evidence of meeting and exceeding government objectives as well as managing the assignment of personnel." *Id.* at 9:45−51. Each claim involves the organization of data in a relational database to generate various reports.

2. Claims

The '933 patent includes twenty-four claims, three of which are independent claims. Because the parties have not stipulated to a representative claim, all twenty-four are addressed

below.

a. Claim 1 and Its Dependent Claims

Claim 1 reads as follows:

> A method of public works construction payroll processing for a contractor comprising:
>
> processing payroll related data with a computer implemented core payroll calculation and processing engine, the processing including:
>
> > sharing between conjoined computer processor components, input data stored in a relational database, said input data required for core payroll processing and calculation, said input data also required for production of at least one certifiable public works construction payroll record report (CPR), the CPR defined in accordance with jurisdiction-specific rules drawn from a plurality of stored rules;
> >
> > distinguishing between public works projects and private sector projects based on the input data and identifying the project as a public works project based on the input data;
> >
> > verifying input data is compliant with requirements of the core payroll processing and calculation engine and the requirements of the CPR;
> >
> > processing the verified input data to produce calculated core payroll data, the calculated core payroll data used for core payroll processing, production of core payroll processing reports, and production of the CPR;
> >
> > sharing, between conjoined computer processor components, the calculated core payroll data;
> >
> > sharing, between the conjoined computer processor components, non-calculated payroll related data as required for production of the CPR;
> >
> > storing the non-calculated payroll related data and the calculated core payroll data redundantly or individually;
> >
> > producing the CPR based on the calculated core payroll data and the non-calculated payroll related data only if the input data identifies the project as a public works project, the CPR produced in conjunction with and simultaneously with core payroll processing; and
> >
> > producing public works contractor management supporting reports using the input data only if the input data identifies the project as a public works project, the public works contractor management supporting reports indicating whether the contractor is in compliance with the jurisdiction-

> specific rules of a jurisdiction to which the public works construction contractor is subject.

'993 Patent at 18:27−19:4. Claims dependent on Claim 1 include methods to: produce and submit a final CPR (Claim 2); generate billing reports (Claim 3); track each employee's work on private projects as compared to public projects (Claim 4); generate reports to determine mandatory contributions to training funds (Claim 5); generate reports demonstrating compliance with wage and apprenticeship laws (Claim 6); generate "management supporting reports" including multiple data elements (Claim 7); simultaneously process payroll under the rules of multiple jurisdictions (Claim 8); draw from "input data includ[ing] data stored in a contractor table and a project table of a regional database" to identify a project as a public works project (Claim 9); process data "to produce calculated core payroll data . . . in conjunction with the step of producing the CPR" (Claim 10); and produce preliminary reports indicating whether the contractor is in compliance with a given jurisdiction's rules, including rules related to journeyman and apprentice hours (Claim 11). *Id.* at 19:5−59.

b. Claim 12 and Its Dependent Claims

The second independent claim is Claim 12, as follows:

> A system for public works construction contractor payroll processing comprising:
>
> a computer processor, or a networked plurality of computer processors, configured with:
>
> computer readable instructions;
>
> at least one data base application;
>
> at least one user interface;
>
> binary and application programming interfaces;
>
> a core payroll calculation and processing engine configured to perform payroll calculation and processing and produce calculated core payroll data; and
>
> an augmentation and supporting engine for public works payroll processing operating in conjunction with the core payroll calculation and processing engine and configured to produce certifiable public works payroll records and reports in conjunction with and simultaneously with the payroll calculation and processing performed by the core payroll calculation and processing engine, the augmentation and

> supporting engine including a plurality of relational tables, at least one relational table configured to distinguish between private sector and public works projects, the augmentation and supporting engine configured to receive the calculated core payroll data and use the calculated core payroll data in the production of the certifiable public works payroll records, wherein the augmentation and supporting engine is configured to produce the certifiable public works payroll records and reports for a project only if the at least one relational table identifies the project as one of the public works projects, the certifiable public works payroll records and reports for the project produced in accordance with jurisdiction-specific rules drawn from a plurality of stored rules.

Id. at 19:60−20:26.

The claims dependent on Claim 12 generally relate to the configuration of the system. Claim 13 describes a networked system "in which the augmenting and supporting engine for public works payroll processing is provided on a first of the networked plurality of computer processors," connected to a second processor for core payroll processing. *Id.* at 20:27−32. Claim 15 is similar, but calls for public works payroll processing by a "plurality of independent processing modules connected by a plurality of interfaces to the core payroll calculation and processing engine." *Id.* at 10:43−47. Claim 14 describes a "monolithic" system in which the core and public works processing engines are joined to provide simultaneous calculations, *id.* at 20:33−42, while Claim 16 describes a divided system where "discrete portions" of the process are performed in "a core payroll system; the augmentation and supporting engine for public works payroll processing; [and] an end-user portion of the system" in separate computing systems or a combination of computing systems, *id.* at 20:48−57. Claim 17 requires a relational table "distinguish[ing] between private sector and public works projects." *Id.* at 20:58−61. Claims 18 and 19 describe a system capable of producing preliminary compliance reports (similar to Claim 11), with the latter focused on apprentice and journeyman hours. *Id.* at 20:62−21:10.

c. Claim 20 and Its Dependent Claims

Claim 20 describes a method of storing and using data to calculate payroll and generate reports. This is the only independent claim that does not explicitly use the word "computer," although its reference to a "calculation and processing engine" indicates that it, too, is a computer-based claim. *Id.* at 21:35; *see also* Opp'n (dkt. 63) at 4 ("The '993 patent . . . improves the

technological environment of automated payroll processing . . . ."). Claim 20 reads as follows:

> A method of public works payroll processing comprising:
>
> storing contractor data for a contractor involved with a project in a contractor table of a relational database, said contractor data including employee information for a plurality of employees employed by the contractor;
>
> storing project data related to the project in a project table of the relational database, said project data including man-hours for each of the plurality of employees and government contract data, the man-hours for each of the plurality of employees provided on a project-specific basis, classification-specific basis, and date-specific basis;
>
> storing payroll processing criteria in a database, said payroll processing criteria including jurisdiction-specific payroll requirement data associated with a plurality of jurisdictions, the plurality of jurisdictions including a jurisdiction associated with the public works project;
>
> distinguishing between public works projects and private sector projects based on the project data in the project table of the relational database and identifying the project as a public works project based on the project data;
>
> performing core payroll calculation and processing by a core payroll calculation and processing engine based at least in part on the contractor data, the project data, and the payroll processing criteria; and
>
> generating reports with an augmentation and supporting engine based on said contractor data, said project data, and said payroll processing criteria, said reports produced in conjunction with and simultaneously with the core payroll calculation and processing, and said reports including certified payroll records for the public works project, the certified payroll records compliant with requirements of the jurisdiction associated with the public works project.

Id. at 21:11−22:9. Claims 21, 22, and 23 call for data and reports including employees' labor classifications, such as ratios of apprentices to journeymen, and may involve "reports indicat[ing] current or impending compliance vulnerability with respect to . . . jurisdiction-specific payroll requirement data." *Id.* at 22:10−25. Claim 24 describes a method in which the initial data includes estimates of journeyman hours and apprentice hours, and the method is capable of generating preliminary "real-time management supporting reports" comparing accrued hours to the estimates. *Id.* at 22:26−36.

3. Prior Art Acknowledged in the '993 Patent

The '993 Patent acknowledges that companies have outsourced payroll processing to "payroll service companies or bureaus," referenced in the patent as "PCBs," since the 1950s, some of which "have developed computer processing engines to manage the payroll tracking, computation and function of check issuance." *Id.* at 3:59−66 & n.3. PCBs are "capable of generating many types of management assistance reports of many configurations based on the data inherent in most, if not all legally recognized employment sectors including Public Works contractor sector payroll, and . . . also capable of generating CPR[s] in compliance with . . . a very limited number of jurisdictional regulations." *Id.* at 4:6−12. The '933 patent also acknowledges preexisting stand-alone software products aimed at payroll processing, such as QuickBooks, but states that "most if not all [stand-alone software products] do not provide reporting functions which are generally satisfactory" in the context of public works CPRs. *Id.* at 3:48−55, 5:14−18; *but see id.* at 9:17−24 (acknowledging an existing "core payroll processing system" capable of completing federal CPRs, although not California CPRs). Finally, the '933 patent acknowledges an earlier patent for "web-based payroll and benefits administration," which describes a payroll processing product intended to generate customizable reports through an internet browser interface. *Id.* at 5:38−6:10 (citing U.S. Patent No. 6,401,079 B1). "However, there is no disclosure in [that earlier patent] regarding the non-customized, 'turn key' Public Works related complete CPR-criteria reporting functionality contemplated in the ['933 patent]." *Id.* at 6:10−13.

The '933 patent states that, because preexisting software could not adequately serve public works payroll processing and reporting needs in all circumstances, a contractor working in the field "must continually train and maintain a knowledgeable payroll and accounting staff and its computerized payroll system at high cost and subject to significant risk if such maintenance of staff and systems is deficient." *Id.* at 5:20−23.

C. Procedural History

Shortridge filed three complaints for infringement of the '993 patent against several defendants. *See* Compl. (dkt. 1); *Shortridge v. Automatic Data Processing, Inc.*, 14-cv-4413-JCS (N.D. Cal.) (the "*ADP* case"); *Shortridge v. Adaptasoft, Inc.*, 14-cv-4739-JCS (N.D. Cal.). The

cases were found to be related and assigned to the undersigned. In this case, Defendants moved to dismiss, and Shortridge amended his Complaint pursuant to Rule 15(a)(1)(B). *See* Mot. to Dismiss (dkt. 18); FAC (dkt. 21). After answering Shortridge's complaints, the defendants in this case and the *ADP* case moved for judgment on the pleadings, claiming that the '933 patent is invalid for ineligible subject matter. Each set of defendants filed a motion, Shortridge filed a consolidated opposition, and each set of defendants filed a reply. The *ADP* case settled after the replies were filed. Shortridge then moved to file a surreply in this case, which the Court has allowed, and the Court held a hearing on April 3, 2015.

D. The Present Motion and the Parties' Arguments

1. Defendants' Motion

Defendants argue that the '933 patent is invalid because "the mere recitation of a well-known concept facilitated by the use of generic computers does *not* constitute patent-eligible subject matter," relying on the Supreme Court's decision in *Alice Corporation Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), and its progeny. Mot. (dkt. 40) at 2. According to Defendants, the '993 Patent is directed to the abstract idea of "producing payroll records and reports for public works projects"—tasks that can be carried out with any generic computer, or with a pen and paper. *Id.* at 11–12. Defendants contend that the '933 patent's claims do not add any inventive element beyond the abstract idea of using generic computer technology for payroll and CPR compliance. *Id.* at 14–18.

2. Shortridge's Opposition

Shortridge responds by arguing primarily that the '933 patent is eligible because it relates to a "plurality of abstract ideas," whereas the patents invalidated by *Alice* and other precedent are described in terms of a single abstract idea. Opp'n at 8−10. Shortridge differentiates between two abstract ideas served by his invention: payroll processing and the creation of CPRs. *See id.* at 9−10. He characterized Defendants' Motion in this case as primarily focused on the latter and the motion in the *ADP* case as focused more on the former, and argues that the difference between the two motions underscores his point that the '933 patent addresses more than one idea. *Id.* Shortridge also argues that the complexity and variety of CPR requirements in various

jurisdictions elevates the invention beyond an ordinary business practice, and that CPRs themselves are "something of a concrete or tangible form." *See id.* at 11–19. He cites CPR-related laws from various jurisdictions as evidence of their complexity, and attaches as exhibits the various statutes that he included in the "File Wrapper" of his application for the '933 patent. *See id.* at 6–7 (listing exhibits). According to Shortridge, although core payroll processing was once a non-technological business practice, the development of technological timekeeping devices leaves the field "necessarily rooted in computer technology" and thus eligible for patent protection. *Id.* at 19–21 (quoting *DDR Holdings LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)).

In addition to *DDR Holdings*, Shortridge cites three cases in which district courts declined to invalidate patents under *Alice*. *Id.* at 23 (citing *Trading Techs. Int'l, Inc. v. CQG, Inc.*, No. 05-cv-4811, 2015 WL 774655 (N.D. Ill. Feb. 24, 2015); *Smartflash LLC v. Apple Inc.*, Nos. 6:13cv447, 6:13cv448-JRG-KNM, 2015 WL 661174 (E.D. Tex. Feb. 13, 2015); *Ameranth, Inc. v. Genesis Gaming Solutions, Inc.*, Nos. SACV 11-00189, 13-00720 AG (RNBx), 2014 WL 7012391 (C.D. Cal. Nov. 12, 2014)). Shortridge also argues that the '933 patent does not risk preempting the abstract idea of CPR creation, because "anyone can do whatever they want to create CPRs (except by the method covered by the '933 patent), including creating hand-written versions, computer generated customized Excel spreadsheet versions, or use a payroll process/CPR producing combination such as those prior art versions disclosed in the specification of the '933 patent." *Id.* at 17.

3. Defendants' Reply

Defendants argue in their Reply that Shortridge has failed to address key post-*Alice* authority. *See* Reply (dkt. 65) at 3 (citing, *e.g.*, *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343 (Fed. Cir. 2014)). Defendants also argue that the cases Shortridge cites are inapposite, and instead contend that the Central District of California's analysis in *Essociate, Inc. v. Clickbooth.com, LLC*—in which the court held invalid a patent related to "receiving and tracking referrals from referral sources"—is more on point. Reply at 4–5 (quoting *Essociate*, No. 13-01886-JVS, 2015 U.S. Dist. LEXIS 26757, at *14 (C.D. Cal. Feb. 11, 2015)). Defendants seize on Shortridge's statement that CPRs can be produced in other ways,

"including creating hand-written versions" and using preexisting computer-based solutions, as an admission that the '933 patent merely describes a computer-based implementation of a well known, abstract business method. *Id.* at 6.

4. Shortridge's Surreply

Shortridge's Surreply pursues his contention that Defendants' arguments oversimplify the '933 patent. *See generally* Surreply (dkt. 66). Shortridge argues that the '933 patent is valid because the invention relates to "organizing human activity." *Id.* at 2. The only concrete example of such organization that Shortridge cites is tracking apprentice and journeyman hours on one or more projects. *Id.* at 2 & n.2. The Surreply also discusses use of the invention to calculate mandatory contributions to industry training funds, citing Claim 5 of the '933 patent. *Id.* at 4–5; *see* '933 Patent at 19:22–24.

III. ANALYSIS

A. Legal Standard Under Rule 12(c)

Defendants move for judgment on the pleadings pursuant to Rule 12(c) of the Federal Rules of Civil Procedure.[3] "Analysis under Rule 12(c) is 'substantially identical' to analysis under Rule 12(b)(6)[.] . . . [U]nder both rules, 'a court must determine whether the facts alleged in the complaint, taken as true, entitle the plaintiff to a legal remedy.'" *Chavez v. United States*, 683 F.3d 1102, 1108 (9th Cir. 2012) (citation omitted). In this case, however, it is the sufficiency of the patent—rather than of the complaint itself—that is at issue.

There is no question that a court may examine at the pleading stage whether a patent is directed to eligible subject matter under 35 U.S.C. § 101. *See generally, e.g.*, *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014) (affirming determination of ineligibility on a 12(c) motion); *see also Content Extraction*, 776 F.3d at 1345 (Fed. Cir. 2014) (affirming determination of ineligibility on a motion to dismiss under Rule 12(b)(6)); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014) (same). Indeed, Judge Mayer's concurrence in *Ultramercial* extolled

[3] Shortridge's Opposition recites the legal standard for a summary judgment under Rule 56. *See* Opp'n at 7–8. That standard does not apply to Defendants' Rule 12(c) Motion, which does not rely on extrinsic evidence beyond the First Amended Complaint and the '933 patent attached thereto.

the virtues of "addressing section 101 at the outset of litigation," noting both doctrinal benefits based on "the section 101 determination bear[ing] some of the hallmarks of a jurisdictional inquiry," and practical benefits including conservation of resources for litigants as well as the judiciary. *Id.* at 718–19 (Mayer, J., concurring). Although the Federal Circuit noted in an earlier decision that it will sometimes be necessary "to resolve claim construction disputes prior to § 101 analysis," even that case recognized that "claim construction is not an inviolable prerequisite to a validity determination under § 101." *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1273–74 (Fed. Cir. 2012).

While it is well established that a court may conduct an eligibility analysis under Rule 12(c), it is less clear what standard should apply in this context in terms of the parties' burdens and presumptions. The Court find's the conclusions of a recent Central District of California decision persuasive as to those issues:

> Because, ordinarily, no evidence outside the pleadings is considered in resolving a motion to dismiss or a motion for judgment on the pleadings, it makes little sense to apply a "clear and convincing evidence" standard—a burden of proof—to such motions. *Cf. Content Extraction*, 776 F.3d at 1348–49 (rejecting argument that clear and convincing evidence standard required court to address all patent claims). As Judge Mayer points out in his concurring opinion in *Ultramercial*, "Although the Supreme Court has taken up several section 101 cases in recent years, it has never mentioned—much less applied—any presumption of eligibility. The reasonable inference, therefore, is that while a presumption of validity attaches in many contexts, no equivalent presumption of eligibility applies in the section 101 calculus." *Ultramercial*, 772 F.3d at 720–21 (Mayer, J., concurring).
>
> Although the clear and convincing evidence standard is not applicable to the Motion, Defendants, as the parties moving for relief, still bear the burden of establishing that the claims are patent-ineligible under § 101. Additionally, in applying § 101 jurisprudence at the pleading stage, the Court construes the patent claims in a manner most favorable to Plaintiff. *See Content Extraction*, 776 F.3d at 1349.

Modern Telecom Sys. LLC v. Earthlink, Inc., No. SA CV 14-0347-DOC, 2015 WL 1239992, at *7–8 (C.D. Cal. Mar. 17, 2015).

B. Subject Matter Eligibility

1. *Alice*, Its Predecessors, and § 101

Federal law recognizes certain categories of inventions eligible for patent protection: "process[es], machine[s], manufacture[s], or composition[s] of matter." 35 U.S.C. § 101. The Supreme Court has "long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice*, 134 S. Ct. at 2354 (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). The present motion implicates the "abstract ideas" exception, which has received significant attention in recent years.

Although *Alice* is generally considered the leading case on abstract idea ineligibility, it relies heavily on the Supreme Court's earlier decisions in *Bilski v. Kappos*, 561 U.S. 593 (2010), and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S.Ct. 1289 (2012). *See Alice*, 134 S. Ct. at 2355–57. The plaintiff in *Bilski* sought to patent a method of hedging against risk in commodities and energy markets; "all members of the Court agree[d] that the patent application at issue [was ineligible under] § 101 because it claim[ed] an abstract idea." *Bilski*, 561 U.S. at 599, 609, 611. As summarized in *Alice*, the *Mayo* decision:

> set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. *Mayo*, 132 S.Ct. at 1296–97. If so, we then ask, "[w]hat else is there in the claims before us?" *Id.* at 1297. To answer that question, we consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. *Id.* at 1298, 1297. We have described step two of this analysis as a search for an "'inventive concept'"—*i.e.*, an element or combination of elements that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *Id.* at 1294.

Alice, 134 S. Ct. at 2355 (brackets in original; format of internal citations modified). Some courts have suggested that these two steps tend to coalesce in their application. *See, e.g.*, *Eclipse IP LLC v. McKinley Equip. Corp.*, No. SACV 14-742-GW (AJWx), 2014 WL 4407592, at *2 (C.D. Cal. Sept. 4, 2014) ("Describing this as a two-step test may overstate the number of steps involved.").

"The claims at issue [in *Alice*] relate[d] to a computerized scheme for mitigating

'settlement risk'—*i.e.*, the risk that only one party to an agreed-upon financial exchange will satisfy its obligation." *Alice*, 134 S. Ct. at 2352. To summarize in broad strokes, the patents described a system in which a third-party intermediary computer system would monitor the transaction parties' bank accounts, and would issue instructions to complete the transaction only if and when both parties were able to satisfy their obligations. *Id.* The Court held that "[l]ike the risk hedging in *Bilski*, the concept of intermediated settlement is 'a fundamental economic practice long prevalent in our system of commerce,'" and that the patents at issue were therefore "directed to" an abstract idea for the purpose of the first *Mayo* step. *Id.* at 2356–57 (quoting *Bilski*, 561 U.S. at 611).

At the second step, the *Alice* Court considered whether the patents at issue supplemented that abstract idea with an "inventive concept" sufficient to confer eligibility. *Id.* at 2357. Based on the principles that neither "[s]tating an abstract idea while adding the words 'apply it'" nor "limiting the use of an abstract idea to a particular technological environment" is enough, the Court held that "[s]tating an abstract idea while adding the words 'apply it with a computer'" is similarly deficient. *Id.* at 2358 (citations and internal quotation marks omitted). The Court concluded that although the claimed method described the process in somewhat more detail—"[a]s stipulated, [it] require[d] the use of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions"—all of the computer functions implicated were "well-understood, routine, conventional activities previously known to the industry" and required "no more than . . . a generic computer to perform generic computer functions." *Id.* at 2359 (citations, brackets, and internal quotation marks omitted). Because the patents did "not, for example, purport to improve the functioning of the computer itself [or] effect an improvement in any other technology or technical field," the Court held that they did not add an inventive element to elevate the claims beyond ineligible abstract ideas. *Id.* at 2359–60. Accordingly, the Court affirmed the Federal Circuit's conclusion that the patents were invalid. *Id.* at 2360.

2. Abstract Ideas After *Alice*

The Supreme Court determined that it "need not labor to delimit the precise contours of the 'abstract ideas' category in [*Alice*]." *Id.* at 2357. The Federal Circuit summarized the current

landscape of this doctrine in its recent *Content Extraction* opinion:

> [A]lthough there is no categorical business-method exception, *Bilski v. Kappos*, 561 U.S. 593, 606, 608 (2010), claims directed to the mere formation and manipulation of economic relations may involve an abstract idea. *See Alice*, 134 S. Ct. at 2356–57. We have also applied the Supreme Court's guidance to identify claims directed to the performance of certain financial transactions as involving abstract ideas. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (creating a transaction performance guaranty for a commercial transaction on computer networks such as the Internet); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1338 (Fed. Cir. 2013) (generating rule-based tasks for processing an insurance claim); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (managing a stable value protected life insurance policy); *Dealertrack* [*Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012)] (processing loan information through a clearinghouse).

Content Extraction, 776 F.3d at 1346.

In *Content Extraction*, the Federal Circuit held that patents describing a method of extracting, recognizing, and storing digital data from scanned hard copy documents were based on an abstract idea because "[t]he concept of data collection, recognition, and storage is undisputedly well-known . . . , humans have always performed these functions[, a]nd banks have, for some time, reviewed checks, recognized relevant data such as the amount, account number, and identity of account holder, and stored that information in their records." *Id.* The court held that the second *Mayo* step did not save those patents, because "all of the additional limitations in the claims cited in [the patent owner's] appeal brief recite well-known, routine, and conventional functions of scanners and computers." *Id.* at 1349.

Two other Federal Circuit decisions finding patents ineligible are also informative. In *Bancorp*, a pre-*Alice* case decided in 2012, the Federal Circuit held that "[t]o salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not," and that merely "[u]sing a computer to accelerate an ineligible mental process does not make that process patent-eligible." *Bancorp*, 687 F.3d at 1278−79. The court therefore affirmed the decision below "that without the [generic] computer limitations nothing remains in the claims but the abstract idea of managing a stable value protected life insurance policy by performing calculations and

manipulating the results." *Id.* at 1280. More recently, in *Ultramercial*, the Federal Circuit held that a patent reciting eleven steps to receive and display copyrighted material on the internet in exchange for viewers watching advertisements, and to receive payment from the advertiser, was rooted primarily in "the abstract idea of showing an advertisement before delivering free content" and failed to add anything more than "routine additional steps." *Ultramercial*, 772 F.3d at 714−16.

3. *DDR Holdings*

The Federal Circuit's recent *DDR Holdings* decision is notable for distinguishing *Alice* and affirming the eligibility of a software patent. *See generally DDR Holdings*, 773 F.3d 1245. The patents at issue in that case disclosed a system to create hybrid websites for electronic shopping, in order to address the perceived problem of websites losing visitor traffic when visitors clicked on advertisements. *See id.* at 1248−49. Normally, when a visitor to a host website clicked on an advertisement for a third party's product, the visitor would be presented with that third party's website to purchase or learn more about the product. *Id.* The patents described a system that would, when a customer clicked on an advertisement, generate a "composite" web page displaying the product (or other content) related to the third-party advertiser, but retaining the "look and feel" of the host website. *Id.* "Thus, the host website can display a third-party merchant's products, but retain its visitor traffic by displaying this product information from within a generated web page that 'gives the viewer of the page the impression that she is viewing pages served by the host' website." *Id.* at 1249 (quoting U.S. Patent No. 6,629,135). The Federal Circuit held that one patent was invalid by anticipation, but considered whether another patent—which had "a greater emphasis on a scalable computer architecture to serve dynamically constructed web pages associated with multiple host website and merchant pairs"—recited patent-eligible subject matter within the scope of § 101. *Id.* at 1249, 1252−59 (citations, internal quotation marks, and brackets omitted).

Applying the two-step analysis of *Mayo* and *Alice*, the Federal Circuit held that "the precise nature of the abstract idea [implicated by the claims at issue was] not as straightforward as in *Alice* or some of our other recent cases." *Id.* at 1257. The court noted that the "asserted claims

do not recite a mathematical algorithm [or] a fundamental economic or longstanding commercial practice," and that "[a]lthough the claims address a business challenge (retaining website visitors), it is a challenge particular to the internet." *Id.* Without clearly resolving whether the claims were directed to an abstract idea, the court held that "under any . . . characterization[] of the abstract idea, the '399 patent's claims satisfy *Mayo*/*Alice* step two." *Id.* at 1257.

The court distinguished cases invalidating patents that "merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet" on the basis that the patent at issue in *DDR Holdings* "is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.* The Federal Circuit emphasized that, in its determination, the creation of a hybrid web page—as opposed to mere redirection to the advertiser's preexisting page—"overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink," and thus held that the patent survived *Alice* because "the claims recite an invention that is not merely the routine or conventional use of the Internet." *Id.* at 1258−59. The court "caution[ed], however, that not all claims purporting to address Internet-centric challenges are eligible for patent." *Id.* at 1358 (citing *Ultramercial*, 772 F.3d at 714).

C. Application to the '933 Patent

1. *Alice*/*Mayo* Step 1: The '933 Patent Is Directed to an Abstract Idea

Shortridge admits that the '933 patent is "directed to the abstract idea of payroll processing," Opp'n at 22 ("The claims preambles say as much."), and agreed at the hearing that it is directed to "one or more abstract ideas." He nevertheless focuses a significant portion of his Opposition on the first step of *Alice* and *Mayo*. *Id.* at 10−15. Despite Shortridge's apparent arguments to the contrary, the Court has no difficulty concluding that the '933 patent is directed to the abstract idea of cataloging labor data, and therefore falls "squarely within the realm of 'abstract ideas' as [courts] have used that term." *See Alice*, 134 S. Ct. at 1257.

The fact that such data can be used for multiple purposes—such as "core" payroll processing, generating CPRs, monitoring apprentice-to-journeyman ratios, and calculating training fund contributions—fails to negate the abstraction of the underlying process. As long as

employees have been paid an hourly wage, employers have utilized various methods of tracking the hours that their employees work. In his Opposition, Shortridge attributes this development to the period following the Civil War, which is certainly long enough past to be considered an established business practice. *See* Opp'n at 19−20. Similarly, for as long as businesses have been required to track their employees' work on specific projects for other purposes—such as CPRs, labor classification ratios, and training fund contributions—they have done that as well, and are capable of doing so using non-technological means. *See* '933 Patent at 5:18−22 (describing an established method of CPR compliance by "continually train[ing] and maintain[ing] knowledgeable payroll and accounting staff and [a] computerized payroll system"); Opp'n at 17 (acknowledging that employers can "creat[e] handwritten versions" of CPRs). That many employers now use technological methods to track hours, *see* Opp'n at 20−21, does not make the practice any less abstract. If it did, the Supreme Court's conclusion in *Alice* that using a third-party intermediary to facilitate financial transactions is an established and abstract practice would be untenable in light of the widespread adoption of electronic banking. *See Alice*, 134 S. Ct. at 2356.

Shortridge argues that the '933 patent withstands *Alice* because it is directed to "a *plurality* of abstract ideas" rather than a single abstract idea. *See* Opp'n at 9. He identifies the purportedly distinct concepts of "payroll processing," "producing payroll records and reports for public works processing," and "organizing human activity" (specifically, managing ratios of apprentice and journeyman hours). *Id.*; Surreply at 2 & n.2. Shortridge identified other abstract ideas at the hearing, such as "project management." As a starting point, the Court disagrees with Shortridge's characterization of the patent, and finds that even viewing the claims in the light most favorable to Shortridge, the '933 patent is directed to the unitary abstract idea of cataloging labor data. Even if that were not so, however, the Court is aware of no case holding that merely combining two or three abstract ideas brings a patent within the scope of § 101, and the available authority tends to suggest the contrary. In *Content Extraction*, although the Federal Circuit used the singular term "abstract idea," it articulated that "idea" as: "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory."

Content Extraction, 776 F.3d at 1348. Further, Shortridge's position would suggest that despite the Supreme Court's holdings that intermediated settlement and hedging against risk are, separately, ineligible abstract business practices, *see generally Alice*, 134 S. Ct. 2347, *Bilski*, 561 U.S. 593, a process of using intermediate settlement to complete hedging transactions could satisfy the eligibility standard of § 101. Although that hypothetical patent is of course not presently before this Court, its claim to eligibility would be doubtful at best, and it would tend to implicate the rule that "limiting an abstract idea to one field of use or adding token postsolution components d[oes] not make the concept patentable." *See Bilski*, 561 U.S. at 612 (discussing *Parker v. Flook*, 437 U.S. 584 (1978)).

There may be some point when a combination of abstract ideas becomes concrete invention; if broken down finely enough, virtually any invention could perhaps be characterized as a combination of abstract concepts, laws of nature, and the like. *See Alice*, 134 S. Ct. at 2354 (noting the need to "distinguish between patents that claim the 'building blocks' of human ingenuity and those that integrate the building blocks into something more" (citation and brackets omitted)). Merely using routine organization of data to serve a handful of different purposes does not, however, rise to that level.

Shortridge also suggests that the process described for generating CPRs is not abstract because "CPRs are *concrete and tangible documents*, historically in paper form." *See* Opp'n at 5. The '933 patent, however, does not describe the creation of tangible paper documents; it describes the compilation of data that makes up the content of such documents—whether in tangible paper form or intangible electronic form. The tangible documents themselves are created by a wholly different invention: the printer, or arguably the manufacturing processes for paper and ink. The processes described in the '933 patent do not alter the creation of the *tangible* aspects of CPRs in any significant way.

Finally, the Court is not persuaded by Shortridge's argument that the claimed capability to accurately complete CPRs for multiple jurisdictions is patent eligible because the "wide variety of opinions, formats, and ways of dealing with the various data elements required [for CPRs] in various jurisdictions" is not a "well understood" process. Opp'n at 18; *see also* Surreply at 4−5

(discussing other reports needed to comply with some jurisdictions' public works laws). Complex subject matter does not necessarily bestow eligibility, as illustrated in the often-cited example that "Einstein could not patent his celebrated law that $E=mc^2$." *See Mayo*, 132 S. Ct. at 1293 (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980)). What enables Shortridge's claimed processes to generate CPRs and other necessary reports for multiple jurisdictions is not any technological innovation, but rather comprehensive knowledge of those jurisdictions' requirements. That sort of regulatory understanding, while undoubtedly valuable and likely difficult to acquire, is nevertheless not patentable subject matter, because it is both abstract and non-innovative.

2. *Alice*/*Mayo* Step 2: The '933 Patent Does Not Add a Sufficiently Inventive Element

Having determined that the '933 patent is directed to an abstract idea, the Court must next "examine the limitations of the claims to determine whether the claims contain an 'inventive concept' to 'transform' the claimed abstract idea into patent-eligible subject matter." *Ultramercial*, 772 F.3d at 715 (citing *Alice*, 134 S. Ct. at 2354). For the most part, Shortridge's arguments as to what constitutes "something more" than an abstract idea overlap with the Court's analysis above—for the reasons previously discussed, the Court holds that neither the various applications of data organization (e.g., the distinction between CPRs and training fund contributions) nor the capability to comply with multiple jurisdictions' requirements transforms the abstract idea of organizing labor data into non-abstract patentable subject matter.

Shortridge also argues that the '933 patent "is necessarily rooted in computer[ized payroll processing] technology in order to overcome a problem specifically arising in the realm of [computerized payroll processing]." Opp'n at 21 (quoting *DDR Holdings*, 773 F.3d at 1257) (alterations in original). Shortridge does not, however, identify any way in which the claims "purport to improve the functioning of the computer itself [or] effect an improvement in any other technology or technical field." *See Alice*, 134 S. Ct. at 2359. Nor does he argue that the process described in the '933 patent "overrides the routine and conventional sequence of events" in order to cause some deviation from a "computer [or] network operating in its normal, expected manner."

See DDR Holdings, 773 F.3d 1258. Instead, the '933 patent describes a routine computer-based application of "the well-known concept of categorical data storage, *i.e.*, the idea of collecting information in classified form, then separating and transmitting that information according to its classification," which courts have recognized as "an abstract idea that is not patent-eligible." *See Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 Fed. App'x 988, 992 (Fed. Cir. 2014); *see also Bascom Research, LLC v. LinkedIn, Inc.*, No. 12-CV-06293-SI, 2015 WL 149480, at *9 (N.D. Cal. Jan. 5, 2015) (quoting *Cyberfone*).

While each claim of the '933 patent involves the use of relational databases and tables, Shortridge does not argue that relational databases constitute the sort of technological improvement sufficient to confer eligibility on the otherwise abstract process of generating labor reports. As a method of organizing data on a computer, relational databases are "well-understood, routine, conventional [and] previously known to the industry." *See Alice*, 134 S. Ct. at 2359; Tracy Pickerell, *The Paradox Database Management Program: Worth the Time & Effort to Explore*, 9 No. 9 Law. PC 6 (1992) (describing the use of off-the-shelf relational database software to organize legal documents more than fifteen years before Shortridge applied for the '933 patent). On a technical level, using relational databases to store and organize labor data therefore "does no more than require a generic computer to perform generic computer functions." *Alice*, 134 S. Ct. at 2359.

Each claim also requires the use of "processing engines." *See* '933 Patent at, e.g., 18:29−30 (Claim 1, calling for "a computer implemented core payroll calculation and processing engine"). There is some dispute as to the meaning of the word "engines" in the claims: the defendants in the *ADP* case understood it to mean "computer programs," while Shortridge argues that it refers to "various core payroll processing machines or 'hardware.'" *See* ADP Mot. (Case No. 14-4413, dkt. 48) at 9; Opp'n at 21−22. Construing the claims in the light most favorable to Shortridge, and thus accepting his construction of "engines" to mean hardware, the '933 patent still describes nothing more than the sort of "generic" hardware that the Supreme Court held insufficient in *Alice*. To paraphrase that case, "nearly every computer will include a [processing engine]." *Alice*, 134 S. Ct. at 2360.

That leaves only generic descriptions of computer components, such as "conjoined computer processing components," '933 Patent at 18:32−33, "a computer processor, or a networked plurality of computer processors," *id.* at 19:62−63, "at least one user interface," *id.* at 19:66, "a plurality of independent processing modules connected by a plurality of interfaces to the core payroll calculation and processing engine," *id.* at 20:45−47, and "an end-user portion of the system," *id.* at 20:54, to name a few. Further, the fact that the '933 patent describes a wide variety of alternative configurations of such components only underscores its potential to preempt virtually any use of relational databases (a standard method of organizing computer-based data) in the public works labor context. *See, e.g., id.* at 20:27−32 (Claim 13, describing a "networked plurality of computer processors"); *id.* at 20:33−42 (Claim 14, describing a "monolithic public works payroll processing system); *id.* at 20:43−47 (Claim 15, describing a "plurality of independent processing modules").

3. The Cases Shortridge Cites are Inapposite

This case is not like *DDR Holdings*, where the Federal Circuit determined that the invention at issue "overr[ode] the routine and conventional" operation of fundamentally computer-based technology, i.e., internet hyperlinks. *See DDR Holdings*, 773 F.3d at 1258. The recent district court cases that Shortridge cites are also inapplicable.

The patents at issue in *Smartflash* described a technical process to "address specific ways of managing access to digital content data based on payment validation through storage and retrieval of use status data and use rules in distinct memory types and evaluating the use data according to the use rules." *Smartflash*, 2015 WL 661174, at *9. The Eastern District of Texas carefully determined in that case that no preexisting non-computerized equivalent existed for the invention's "access restrictions" on media that a user could purchase, such as "such as the number of times a user may watch a movie, the length of time the user has access to it, and restrictions on reproducing it." *Id. Smartflash* is therefore distinguishable from here, where the '933 patent merely describes a computer-based method to complete the routine—and not inherently computerized or technological—business practice of organizing labor data and generating reports.

In *Ameranth*, the Central District of California held that the defendants simply did not meet

their burden of demonstrating that the patents at issue—involving certain aspects of the management of internet-based poker games—were directed to an abstract idea. *Ameranth*, 2014 WL 7012391, at *4−6. The defendants identified only the concept of a "customer loyalty program," which failed to capture many aspects of the claims. *See id.* That court held that it was "not the Court's role to develop winning theories for the parties," and therefore declined to invalidate the patents. *See id.* at 4. Here, however, Defendants have sufficiently explained that the '933 patent is directed to the abstract and established business practice of organizing labor data to comply with public works law. *See* Mot. at 11 (identifying the "abstract idea [of] producing payroll records and reports for public works projects"). Notwithstanding Shortridge's arguments to the contrary, *see* Opp'n at 9−10, the fact that Defendants in this case, the defendants in the related *ADP* case, and now the Court each articulate the underlying abstract idea somewhat differently is of little consequence. As the District of Delaware recently explained:

> There are several problems, however, with the Plaintiffs' focus on semantics. First, the court rejects the assertion that the [defendants] present "contradictory articulations" of the abstract idea. Rather, their framing of the invention appears entirely consistent. Second, the court fails to understand how the use of slightly different words to describe something abstract is proof that it is not abstract. Indeed, "abstract" is defined as "relating to or involving general ideas or qualities rather than specific people, objects, or actions." *Abstract*, Merriam–Webster: Dictionary and Thesaurus, http://www.merriam-webster.com/dictionary/abstract (last visited Mar. 10, 2015). The English language is capable of conveying like ideas in different terms.

Tenon & Groove, LLC v. Plusgrade S.E.C., No. CV 12-1118-GMS-SRF, 2015 WL 1133213, at *3 (D. Del. Mar. 11, 2015). The Court agrees with those conclusions, and finds them wholly applicable to Shortridge's arguments based on what he perceives as discrepancies between the defendants' motions in this case and the related *ADP* case.

Perhaps the closest case that Shortridge cites is *Trading Technologies International*, where the Northern District of Illinois determined that graphical user interfaces ("GUIs") designed to display a "static price axis" for commodities trading "recite[d] an invention that is not merely the routine or conventional use" of computers or the Internet," but rather "eliminated some problems of prior GUIs relating to speed, accuracy and usability." *Trading Techs. Int'l*, 2015 WL 774655,

at *5. Even that case, however, addresses a more inherently technological problem than the categorization and processing of labor data contemplated by the '933 patent.

4. The '933 Patent's Claims Are Ineligible for Patent Protection

"To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not." *Bancorp*, 687 F.3d at 1278. It must do more than merely "accelerate an ineligible mental process." *Id.* at 1279. The patent must describe some degree of technological innovation beyond merely the "abstract idea implemented on a generic computer [or] a handful of generic computer components configured to implement the same idea." *Alice*, 134 S. Ct. at 2360. As the Federal Circuit explained in *Ultramercial*, "[i]t is not that generic computers . . . are not 'technology,' but instead that they have become indispensable staples of contemporary life," and as such "their use should in general remain 'free to all men and reserved exclusively to none.'" *Ultramercial*, 772 F.3d at 723−24 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)).

The '933 patent does not meet this standard. Its claims "amount[] to electronic recordkeeping—one of the most basic functions of a computer"—simply applied in the context of public works labor management using generic computer equipment. *See Alice*, 134 S. Ct. at 2359. Because neither "limiting an abstract idea to one field of use," *Bilski*, 561 U.S. at 612, nor requiring even "a substantial and meaningful role for [a] computer," *Ultramercial*, 772 F.3d at 722 (quoting *Alice*, 134 S. Ct. at 1359), will bring an otherwise ineligible claim within the scope of § 101, the '933 patent is ineligible and invalid.

IV. CONCLUSION

For the reasons stated above, Defendants' motion for judgment on the pleadings is GRANTED. Leave to amend would serve no purpose here because the flaw lies in Shortridge's

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patent rather than in his pleading. The Clerk is therefore instructed to enter judgment in Defendants' favor and close the file.

IT IS SO ORDERED.

Dated: April 14, 2015

JOSEPH C. SPERO
Chief Magistrate Judge

United States District Court
Northern District of California