UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte COUROSH MEHANIAN, LUCA CAZZANTI,
JULIE PENZOTTI, JACKSON FENG, and OLIVER DOWNS

Appeal 2017-001964
Application 13/830,957
Technology Center 3600

Before JOHN A. JEFFERY, JUSTIN BUSCH, and SCOTT E. BAIN,
Administrative Patent Judges.

JEFFERY, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Examiner's
decision to reject claims 1–28. We have jurisdiction under 35 U.S.C. § 6(b).
We affirm.

STATEMENT OF THE CASE

Appellants' invention targets offerings to telecommunications
customers by leveraging time series techniques that express entity-activity
data to dynamically classify the entity's behavior. *See generally* Abstract;
Spec. 1. Claim 1 is illustrative:

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[1] Appellants identify the real party in interest as Globys, Inc. App. Br. 2.

1. A network device, comprising:
a transceiver to send and receive data over a network; and
a processor configured to perform actions, comprising:

    receiving telecommunications customer data for a plurality of customers;

    extracting, for each of the plurality of customers from the received telecommunications customer data, time series data for the customer that identifies a changing balance on an account of the customer;

    analyzing the time series data for one of the plurality of customers to identify a pattern in the changing balance on the account of the one customer and to identify a modification to the identified pattern;

    determining that the identified modification to the identified pattern results from a change in a telecommunication plan associated with the account of the one customer; and

    in response to determining that the identified modification results from the change in the telecommunication plan, providing promotional information to the one customer that is related to the change in the telecommunication plan.

THE REJECTIONS

The Examiner rejected claims 1–28 under 35 U.S.C. § 101 as directed to ineligible subject matter. Final Act. 2–3.[2]

The Examiner rejected claims 1 and 3 under 35 U.S.C. § 102(e) as anticipated by Raleigh et al. (US 2012/0101952 A1; Apr. 26, 2012) (hereinafter "Raleigh"). Final Act. 3–7.

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[2] Throughout this opinion, we refer to (1) the Final Rejection mailed October 29, 2015 ("Final Act."); (2) the Appeal Brief filed April 29, 2016 ("App. Br."); (3) the Examiner's Answer mailed September 23, 2016 ("Ans."); and (4) the Reply Brief filed November 16, 2016 ("Reply Br.").

The Examiner rejected claims 2, 4, 10, 11, 14, 18, and 22 under 35 U.S.C. § 103 as unpatentable over Raleigh and Erman et al. (US 8,565,718 B1; Oct. 22, 2013) (hereinafter "Erman"). Final Act. 8–15.

The Examiner rejected claims 7, 17, and 24 under 35 U.S.C. § 103 as unpatentable over Raleigh, Erman, and Gargi et al. (US 8,019,702 B1; Sept. 13, 2011) (hereinafter "Gargi"). Final Act. 15–18.

The Examiner rejected claims 8, 9, 15, 16, and 23 under 35 U.S.C. § 103 as unpatentable over Raleigh, Erman, and Anderson et al. (US 2009/0132347 A1; May 21, 2009) (hereinafter "Anderson"). Final Act. 18–22.

The Examiner rejected claim 5 under 35 U.S.C. § 103 as unpatentable over Raleigh and Edler et al. (US 2010/0161319 A1; June 24, 2010) (hereinafter "Edler"). Final Act. 22–23.

The Examiner rejected claim 6 under 35 U.S.C. § 103 as unpatentable over Raleigh, Edler, and Jain et al. (US 2003/0212619 A1; Nov. 13, 2003) (hereinafter "Jain"). Final Act. 23–24.

The Examiner rejected claims 12, 19–21, 25, and 27 under 35 U.S.C. § 103 as unpatentable over Raleigh, Erman, and Edwards et al. (US 2010/0262487 A1; Oct. 14, 2010) (hereinafter "Edwards"). Final Act. 24–29.

The Examiner rejected claim 13 under 35 U.S.C. § 103 as unpatentable over Raleigh, Erman, and Young et al. (US 2012/0115433 A1; May 10, 2012) (hereinafter "Young"). Final Act. 29–31.

The Examiner rejected claims 26 and 28 under 35 U.S.C. § 103 as unpatentable over Raleigh, Erman, Edwards,[3] and Jain. Final Act. 31–33.

THE INELIGIBILITY REJECTION

The Examiner finds that the claimed invention is directed to an abstract idea, namely providing targeted offers to consumers based on a pattern of telecommunication data—a fundamental economic practice. Final Act. 2; Ans. 7. According to the Examiner, the claimed elements do not add significantly more to the abstract idea because, among other things, the claims recite generic computing functionality that performs the recited fundamental economic practice. Final Act. 2–3; Ans. 8–10. Based on these findings, the Examiner concludes that the claims are ineligible under § 101. Final Act. 2–3; Ans. 7–10.

Appellants argue that the claims are not directed to an abstract idea, but rather are necessarily rooted in computer technology to address problems specific to a networked environment, including improving efficiency when dealing with vast amounts of telecommunications data. App. Br. 33–34; Reply Br. 9–14. According to Appellants, by determining the relationship between changes to telecommunications plans and the resulting changes in usage patterns in the manner claimed, a services provider can deploy

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[3] Although the Examiner rejects claims 26 and 28 over Raleigh, Erman, Edler, and Jain, these claims depend from claims 25 and 27, respectively, that were rejected over Raleigh, Erman, and Edwards. *Compare* Final Act. 31 *with* Final Act. 24. Accordingly, we presume that the Examiner intended to reject claims 26 and 28 over Raleigh, Erman, Edwards, and Jain in light of this dependency, and treat the Examiner's error in this regard as harmless.

computing resources more efficiently to reflect those changes. Reply Br. 12–14.

Appellants add that, even if the claims are directed to an abstract idea as the Examiner contends, the claims recite significantly more than the abstract idea, namely by reciting (1) a centralized telecommunications service provider that interacts with and provides functionality to users in customized manners specific to those users, and (2) particular detailed techniques for how such interactions are performed. App. Br. 35; Reply Br. 14–17. According to Appellants, not only is the basis for the Examiner's rejection unsupported, but the Examiner also failed to show that the claims preempt using the alleged abstract idea in all fields. App. Br. 36; Reply Br. 17.

ISSUE

Has the Examiner erred in rejecting claims 1–28 by concluding that they are directed to ineligible subject matter under § 101? This issue turns on whether the claimed invention is directed to a patent-ineligible abstract idea and, if so, whether the recited elements—considered individually and as an ordered combination—transform the nature of the claim into a patent-eligible application of that abstract idea.

ANALYSIS

To determine whether claims are patent eligible under § 101, we apply the Supreme Court's two-step test articulated in *Alice Corp. Proprietary Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014). First, we determine whether the claims are directed to a patent-ineligible concept: laws of nature,

natural phenomena, and abstract ideas. *Id.* at 2354–55. If so, we then
proceed to the second step and examine the recited elements—both
individually and as an ordered combination—to determine whether the
claims contain an "inventive concept" sufficient to transform the claimed
abstract idea into a patent-eligible application. *Id.* at 2357.

Alice Step One

Applying *Alice* step one, we are not persuaded of error in the
Examiner's finding that the claimed invention is directed to an abstract idea,
namely providing offers to customers based on a pattern of data associated
with those customers (Final Act. 2; Ans. 7)—targeted promotion that is a
fundamental economic practice.

Independent claim 1 recites a network device with two structural
elements: a transceiver and a processor. The transceiver sends and receives
"data" over a network, but the processor performs different functions based
on receiving "telecommunications customer data"—data that is distinct from
the data sent and received by the transceiver.

Notably, the recited transceiver has no further involvement in the
processor's functionality recited in claim 1. That is, the processor and its
associated functionality do not refer to, let alone utilize, the transceiver or its
associated functionality. As claimed, the transceiver and processor are
distinct elements of the recited network device that function independently
of the other.

We emphasize this distinction, for the claim is directed primarily to
the processor's functionality—not the transceiver. Indeed, the processor's

functionality forms the principal basis for this dispute with respect to both the eligibility and prior art rejections.

According to claim 1, the processor is configured to perform various functions, namely (1) receive telecommunications customer data for plural customers; (2) extract time series data for each customer from the received data; (3) analyze the time series data for one customer to identify (a) a pattern in the changing balance on the customer's account, and (b) a modification to the identified pattern; (4) determine that the identified modification results from a change in telecommunications plan associated with the customer's account; and (5) provide promotional information to the customer related to that change responsive to determining that the identified modification results from the change.

In essence, the recited processor of claim 1 (1) receives data; (2) extracts certain data from the received data; (3) analyzes the extracted data to identify patterns and their modifications; (4) determines the cause of those modifications, namely whether they resulted from a change in a customer's telecommunications plan; and, if so, (5) provides promotional information to the customer.

Despite Appellants' arguments to the contrary (App. Br. 33–35; Reply Br. 9–14), we agree with the Examiner that claim 1 is directed to an abstract idea given the claimed invention's fundamental data analysis function noted above.

It is well settled that collecting information is within the realm of abstract ideas—even when the information is limited to particular content. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). It is also well settled that analyzing information by steps people go

through in their minds, or by mathematical algorithms, without more, are essentially mental processes within the abstract idea category. *Id.* at 1354. And 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. *Id.*

Similar to the claims at issue in *Electric Power*, the claimed invention here gathers, manipulates, analyzes, and provides information of a specified content, but does not use any particular inventive technology for performing those functions. *See also Berkheimer v. HP Inc.*, 881 F.3d 1360, 1366–67 (Fed. Cir. 2018) (holding claims directed to (1) evaluating parsed object structures according to previously-stored structures, and (2) presenting an evaluated structure were directed to the abstract idea of parsing and comparing data); *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (Fed. Cir. 2011) (noting that methods that simply collect and compare data, without applying the data in a step of the overall method, may be ineligible under § 101). That time-series data is extracted and analyzed to identify modifications to account balance patterns does not change our conclusion, for this analysis is still a part of the recited abstract idea, as is determining the cause of those modifications based on that analysis. *Cf. Elec. Power*, 830 F.3d at 1351–54.

Despite Appellants' arguments to the contrary (App. Br. 33–35; Reply Br. 9–14), the claimed invention is directed to the abstract idea of targeted promotion, specifically analyzing data to target "promotional information" to those customers who have changed their telecommunications plan, which is at least a fundamental economic practice. Such fundamental economic

and business practices are often held to be abstract. *See, e.g., Alice,* 134 S. Ct. at 2356 (holding the concept of intermediated settlement is an abstract idea directed to a "fundamental economic practice long prevalent in our system of commerce") (citation omitted); *see also buySAFE v. Google, Inc.,* 765 F.3d 1350, 1353–54 (Fed. Cir. 2014) (citing cases where contractual relations at issue constituted fundamental economic practices, and noting that forming or manipulating economic relations may involve an abstract idea); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n,* 776 F.3d 1343, 1347 (Fed. Cir. 2014) (explaining that claims directed to "the mere formation and manipulation of economic relations" and "the performance of certain financial transactions" have been held to involve abstract ideas).

Appellants' reliance on *DDR Holdings, LLC v. Hotels.com, L.P.,* 773 F.3d 1245 (Fed. Cir. 2014) on pages 33 to 35 of the Appeal Brief is unpersuasive. There, instead of a computer network operating in its normal, expected manner by sending a website visitor to a third-party website apparently connected with a clicked advertisement, the claimed invention in *DDR* generated and directed the visitor to a hybrid page that presented (1) product information from the third party, and (2) visual "look and feel" elements from the host website. *DDR,* 773 F.3d at 1258–59. Given this particular Internet-based solution, the court held that the claimed invention did not merely use the Internet to perform a business practice known from the pre-Internet world, but rather was necessarily rooted in computer technology to overcome a problem specifically arising in computer networks. *Id.* at 1257.

That is not the case here. As noted previously, Appellants' claimed invention essentially analyzes data to identify a modification to a pattern in a customer's account balance, and then determines whether the modification resulted from a change in the telecommunications plan. If so, promotional information related to that change is provided to the customer.

Although this analyzed data pertains to a customer's usage of a telecommunications network and the customer's *contractual* relation with a telecommunications provider in terms of a particular telecommunication plan, it not necessarily rooted in that technology. Rather, this fundamental concept of analyzing data to determine whether patterns associated with a customer's account balance change due to the customer's particular contractual relationship with an enterprise is analogous to a variety of similar data analysis functions in other commercial contexts, such as banking, retail stores, or even fraud prevention. *Accord* Spec. 6:8–13 (noting the disclosed invention's applicability to not only telecommunications, but also "virtually any other industry in which that industry's customers interact with the services and/or products offered by an entity within that industry").

Suppose, for example, a customer has a checking account at a bank. By analyzing data associated with a customer's account, patterns could be discerned with respect to, among other things, the customer's depositing and withdrawing money from the checking account over time. But if the customer later opens a savings account at that bank, this change could affect the customer's established pattern of deposits and withdrawals for the checking account, for the customer may now be depositing money in the savings account that was formerly deposited in the checking account.

Such a change could trigger providing "promotional information" to the customer associated with their newly-opened savings account, including information pertaining not only to the savings account, but also other accounts and financial services that may be of interest to the customer.

Given the claimed invention's fundamental data analysis and pattern recognition functions that are applicable to other commercial contexts, the claimed invention is not necessarily rooted in computer or telecommunications technology. Rather, the claimed invention essentially uses a computer to mine data to determine the cause of modifications to a pattern with respect to a customer's account, and provide promotional information to the customer if the modification resulted from a change to a particular contractual relationship with a provider, namely a telecommunications plan change. In short, this functionality is directed to a fundamental economic practice—an abstract idea.

That customers are grouped with other customers with similar patterns as recited in dependent claim 2 and independent claims 10 and 18 does not change our conclusion. In short, grouping similar items together that share common characteristics or attributes does not render an otherwise abstract idea less abstract. *See Versata Development Gp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1312, 1330–36 (holding ineligible claims directed to product price determination involving hierarchy of organizational and product groups); *see also Elec. Power*, 830 F.3d at 1351–56.

Appellants' reliance on *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) on pages 11 and 12 of the Reply Brief is likewise misplaced. There, the claimed process used a combined order of specific rules that rendered information in a specific

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format that was applied to create a sequence of synchronized, animated characters. *McRO*, 837 F.3d at 1315. Notably, the recited process *automatically animated characters* using particular information and techniques—an improvement over manual three-dimensional animation techniques that was not directed to an abstract idea. *Id.* at 1316.

But unlike *McRO*, the claimed invention analyzes data to identify a modification to a pattern in a customer's account balance, determines whether the modification resulted from a change in the telecommunications plan, and if so, provides promotional information related to that change to the customer. That these functions are implemented in a telecommunications environment does not change our conclusion, for such field-of-use limitations do not render the recited abstract idea patent-eligible. *See Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (noting that *Parker v. Flook*, 437 U.S. 584 (1978) "stands for the proposition that the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the [idea] to a particular technological environment") (internal quotation marks omitted).

We, therefore, agree with the Examiner that claim 1 is directed to an abstract idea.

Alice Step Two

Nor do the recited elements—considered individually and as an ordered combination—transform the nature of claim 1 into a patent-eligible application of the abstract idea to ensure that the claim amounts to significantly more than that idea. *See Alice*, 134 S. Ct. at 2357.

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That a processor is configured to perform the recited actions does not change our conclusion. In short, this processor is merely a generic computing component implementing conventional generic computing functions, such as (1) receiving data, (2) extracting and analyzing time series data to identify balance pattern modifications, (3) determining the cause of the modifications, and (4) providing information to a customer. *Accord* Final Act. 2–3; Ans. 8.

In short, the claimed invention merely uses generic computing components to do that which can be performed mentally or with a pen and paper—exclusive mental functions ineligible for patent protection under § 101. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011).

We reach this conclusion even assuming, without deciding, that the recited components add efficiency, for any speed increase comes from the capabilities of the generic computer components—not the recited process itself. *See FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (citing *Bancorp Services, LLC v. Sun Life Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.")). Like the claims in *FairWarning*, the focus of claim 1 is not on an improvement in computer processors as tools, but on certain independently abstract ideas that use generic computing components as tools. *See FairWarning*, 839 F.3d at 1095 (citations and quotation marks omitted).

In short, merely reciting these generic computing components cannot transform a patent-ineligible abstract idea into a patent-eligible invention.

Alice, 134 S. Ct. at 2358. In other words, merely reciting an abstract idea while adding the words "'apply it with a computer'" does not render an abstract idea non-abstract: there must be more. *See id.* Nor does the claimed invention improve the computer's functionality or efficiency, or otherwise change the way that device functions. *Cf. Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

In addition, the claimed invention's using a computer to extract and analyze data to identify patterns and modifications to those patterns with respect to a customer's account to determine the cause of those modifications and provide associated promotional information is essentially a data mining operation that is well-understood, routine, and conventional. *See* John Daintith & Edmund Wright, THE FACTS ON FILE DICTIONARY OF COMPUTER SCIENCE 52 (Revised ed. 2006) (defining "data mining" as "[t]he analysis of large quantities of data to discover previously unknown patterns"). Notably, the above dictionary provides an example of data mining in a commercial context, namely with respect to a store's loyalty cards, as noted below:

> The use of store loyalty cards, for example, means that a record of each customer's purchases can be built up over a period of time; data mining can then *identify any patterns*, such as favored brands, amount usually spent on each visit to the store, etc., which can be used to generate marketing literature and *even spread offers tailored to each customer*.

Id. (emphases added).

Other dictionaries define data mining similarly. *See, e.g.*, MCGRAW-HILL DICTIONARY OF COMPUTING & COMMUNICATIONS 88 (2003) (defining "data mining" as "[t]he identification or extraction of relationships and

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patterns from data using computational algorithms to reduce, model, understand, or analyze data"); *see also* THE OXFORD DICTIONARY OF COMPUTING 130 (6th ed. 2008) (defining "data mining" in terms of an example involving detecting the pattern of using a credit card to detect possible fraud, and noting that data mining involves different artificial intelligence methods together with statistical methods such as *cluster* analysis and data summarization).

That a processor is used to obtain the telecommunications customer data is of no consequence here, for such data gathering steps are insignificant extra-solution activity that is insufficient to render the claim patent-eligible. *See In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008) (en banc), *aff'd on other grounds*, 561 U.S. 593 (2010) ("[T]he involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity."); *see also id.* at 963 (characterizing data gathering steps as insignificant extra-solution activity). And to the extent that the data received by the transceiver is somehow also used by the processor in performing the recited actions, gathering that data is likewise insignificant extra-solution activity.

Lastly, we find unavailing Appellants' contention the Examiner also failed to show that the claims preempt using the alleged abstract idea in all fields. App. Br. 36; Reply Br. 17. Where, as here, the claims cover a patent-ineligible concept, preemption concerns "are fully addressed and made moot" by an analysis under the *Alice* framework. *See Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

For the foregoing reasons, then, the recited elements—considered both individually and as an ordered combination—do not contain an

"inventive concept" sufficient to transform the claimed abstract idea into a patent-eligible application. Therefore, we are not persuaded that the Examiner erred in rejecting claims 1–28 under § 101.

THE ANTICIPATION REJECTION

The Examiner finds that Raleigh discloses every recited element of claim 1 including (1) extracting, from received telecommunications customer data, time series data for a customer to identify (a) a pattern in the changing balance on the customer's account, and (b) a modification to the identified pattern; (2) determining that the identified modification results from a change in the telecommunications plan associated with the customer's account; and (3) providing promotional information to the customer related to that change responsive to this determination. Final Act. 3–7; Ans. 3–6. According to the Examiner, Raleigh's system notifies a user when the usage rate or velocity is high or low compared to the overall service usage plan rate, thus indicating a change in the service usage plan rate. Ans. 5–6.

Appellants argue that Raleigh's system does not analyze a customer's time series data to identify the recited pattern modification, let alone determine that the identified modification results from a change in the telecommunications plan associated with the customer's account as claimed. App. Br. 14–20; Reply Br. 5–7.

ISSUE

Under § 102, has the Examiner erred in rejecting claim 1 by finding that Raleigh discloses (1) analyzing a customer's time series data to identify

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the recited pattern modification, and (2) determining that the identified modification results from a change in the telecommunications plan associated with the customer's account?

ANALYSIS

We begin by noting, as do Appellants, that claim 1 requires determining that the identified modification to the identified pattern in the customer's account balance *results from a change in a telecommunication plan* associated with that account. *Accord* Reply Br. 7 (noting that the change to the telecommunication plan causes the modification to the customer's usage pattern in claim 1). Although the Specification does not define the term "telecommunication plan" unlike other terms on pages 3 and 4, the Specification nevertheless notes that changes in a customer's observed behavior may be attributed to a change in the customer's "rate plan." Spec. 24:22–23. In this context, then, a "telecommunication plan" is equivalent to a "rate plan," namely a particular level of telecommunication service offered by a provider to a customer at a given rate.

Given this construction, we find the Examiner's anticipation rejection problematic on this record. In the rejection, the Examiner cites Raleigh's paragraph 390 for disclosing the recited determination function. Final Act. 5–6. But as Appellants indicate (App. Br. 18–19), this paragraph does not disclose any change in the telecommunication plan, let alone that the identified pattern modification results from a change in that plan. Although this paragraph describes indicating aggregate usage associated with multi-user service—a service that is associated with a certain telecommunications plan—Raleigh's paragraph 390 says nothing about any

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changes to that plan, let alone that such changes would cause modifications to an identified pattern associated with a customer's account balance as claimed. Raleigh's paragraph 391 fares no better in this regard.

In the Answer, however, the Examiner cites four new paragraphs from Raleigh, namely paragraphs 273, 279, 280, and 282, that are said to provide specific examples of service usage patterns cited in the rejection. *See* Ans. 4–6. But these new citations, like the Examiner's other citations, do not anticipate the recited determination.

Even assuming, without deciding, that a user's service usage velocity or rate is derived from time series data as the Examiner indicates (Ans. 5), these values are merely compared to a service plan limit or average values to notify the user accordingly. *See* Raleigh ¶¶ 273, 279, 282. That users can be offered an option *to change* their service plan in connection with these notifications in Raleigh's paragraphs 275, 280, and 282 does not mean that the plan was actually changed, let alone that such a change caused a modification to an identified pattern associated with a customer's account balance.

Therefore, to the extent that the Examiner relies on these options for a user to possibly change a service plan at some time in the future for teaching the recited telecommunication plan change, such findings are problematic on this record. And to the extent that the Examiner finds that changes in usage *rates* in Raleigh somehow change a telecommunication *plan* (*see* Ans. 6), we disagree.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1, and (2) dependent claim 3 for similar reasons.

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THE OBVIOUSNESS REJECTIONS

Because the Examiner has not shown that the other cited prior art cures Raleigh's foregoing deficiencies regarding the rejection of independent claim 1, and because independent claims 10 and 18 recite commensurate limitations, we will not sustain the obviousness rejections of claims 2 and 4–28 (Final Act. 8–33) for similar reasons.

CONCLUSION

The Examiner did not err in rejecting claims 1–28 under § 101. The Examiner, however, erred in rejecting (1) claims 1 and 3 under § 102, and (2) claims 2 and 4–28 under § 103.

DECISION

We affirm the Examiner's decision to reject claims 1–28.

Because the rejection of each appealed claim is affirmed on at least one of the grounds specified in the Office Action from which the appeal was taken, the Examiner's decision to reject claims 1–28 is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED