UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte NANCY ELLEN KHO,
BILL D. LE,
FANG LU,
and ALAA ABOU MAHMOUD

_____

Appeal 2015–006311
Application 12/959,012
Technology Center 3600

_____

Before ANTON W. FETTING, PHILIP J. HOFFMANN, and
MATTHEW S. MEYERS, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE[1]

Nancy Ellen Kho, Bill D. Le, Fang Lu, and Alaa Abou Mahmoud

(Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims

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[1] Our decision will make reference to the Appellants' Appeal Brief ("App.
Br.," filed February 9, 2015) and Reply Brief ("Reply Br.," filed June 11,
2015), and the Examiner's Answer ("Ans.," mailed April 21, 2015), and
Final Action ("Final Act.," mailed October 14, 2014).

1–25, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellants invented a way of making a recurring reservation for a resource. Specification para. 1.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

> 1. A method for making a recurring reservation for a resource, the method comprising:
>
> [1] with a physical computing system, receiving a request for a recurring reservation of a type of resource,
>
>> wherein said request specifies the type of resource requested without specifying a specific resource of that type,
>>
>> a specific resource of the type requested to be identified by the receiving computing system in response to the request;
>
> [2] with said physical computing system, receiving a preference associated with said request,
>
>> wherein said preference indicates how to utilize alternate resources within said type of resource in satisfying said request;
>
> [3] with said physical computing system, determining an availability of specific resources of said type of resource,
>
>> said determining being performed by said physical computing system;
>
> and

[4] with said physical computing system, displaying a proposed reservation of said specific resources

based in part on said preference and said availability,

said displaying being performed by said physical computing system.

The Examiner relies upon the following prior art:

Boss '409	US 2007/0005409 A1	Jan. 4, 2007
Boss '778	US 2008/0033778 A1	Feb. 7, 2008
Li	US 2009/0055234 A1	Feb. 26, 2009
Chu	US 7,693,736 B1	Apr. 6, 2010

Claims 1–25 stand rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter.

Claims 1–6, 8–13, 15–19, and 21 stand rejected under 35 U.S.C. § 102(b) as anticipated by Li.

Claims 1–3, 8–10, 15–17, and 21 stand rejected under 35 U.S.C. § 102(e) as anticipated by Chu.

Claims 7, 14, and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Li.

Claims 4–7, 11–14, and 18–20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Chu.

Claims 22–25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Li, Boss '778, and Boss '409.

Claims 22–25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Chu, Boss '778, and Boss '409.

ISSUES

The issues of eligible subject matter turn primarily on whether creating a schedule is more than an abstraction. The issues of anticipation and obviousness turn primarily on whether the art is encompassed within the scope of the breadth of the claims.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Claim Construction

01. The disclosure contains no lexicographic definition of "satisfy."

02. The ordinary meaning of "satisfy" is to fulfill a need or desire.[2]

Facts Related to the Prior Art

Li

03. Li is directed to scheduling meetings given certain resource constraints. Li para. 1.

04. Li describes scheduling meetings by matching a scheduler-defined meeting profile against a pool of virtual resources. This

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can include electronically storing data that defines a set of virtual resources, each resource having associated therewith at least one property. This also can include generating a meeting profile that specifies one or more resources required for a meeting based upon received user input. Additionally, this can include electronically searching the stored data to match elements of the set of virtual resources to the one or more resources required for the meeting, and automatically generating at least one meeting schedule candidate based upon the match. This further can include presenting the at least one meeting schedule candidate to a user. Li para. 7.

05. The meeting profiler module defines the meeting profile, which in turn specifies different virtual resources needed for a particular meeting or for a series of related meetings that are to occur at different intervals over the course of time. The meeting profile specifies particular properties for each virtual resource. The meeting scheduler specifies location and time that the meeting is to take place. The meeting profiler module implements a predetermined grammar that allows the meeting scheduler to specify needed or desired virtual resources and their associated properties. For example, the meeting profiler module can recognize statements such as "at least five out of the specified thirteen participants are necessary for the meeting to be valid." Similarly, the meeting profiler module can recognize statements indicating that one or more designated participants "must be present," for example. Likewise, for example, the meeting

profiler module can recognize a statement such as "the meeting should occur between Tuesday and Friday every three weeks." The flexible language used, accordingly, can specify a minimum numerical value that must be assigned to any property of a particular virtual resource before the resource can be considered for inclusion in a mix of resources that will define a particular meeting schedule candidate. Once the meeting profile has been defined and generated, the profile-resource matching module searches the pool of virtual resources electronically stored to compile a list of identified resources satisfying, at least to some degree, the preferences and/or requirements defined by the meeting profile. Li paras. 26–28.

06. Li's profile-resource matching module generates alternate meeting schedule candidates, each comprising a different mix of virtual resources. An arrangement comprising a particular mix of virtual resources for a meeting may have to meet some minimum criteria if it is to be included among the list of meeting schedule candidates. Each of the meeting schedule candidates can be combined by the profile-resource matching module into a single list of meeting schedule candidates, each meeting schedule candidate having an overall score. The different meeting schedule candidates, accordingly, can be rank ordered based upon their overall scores. The rank ordered meeting schedule candidates can be presented to the meeting schedule by the profile-resource matching module through the user interface. Li paras. 34–35.

Chu

07.   Chu is directed to scheduling of recurring meetings. Chu 1:6–
8.

Boss '778

01.   Boss '778 is directed to prioritizing calendar events by applying
specified rulesets. Boss '778 para. 2.

02.   Responsive to detecting a scheduling conflict between the first
calendar event and another calendar event, a reschedule procedure
begins by determining whether the scheduling conflict can be
resolved by modifying the specified event time to an another time
within the specified time interval. Responsive to determining that
the scheduling conflict cannot be resolved by changing the
specified event time to another time within the specified time
interval, the specified event priority level of the first calendar
event is compared with event priority level of the conflicting
calendar event to determine scheduling prioritization between the
first calendar event and the conflicting calendar event. If the
system still does not find an available time in which the conflict
can be resolved using event priority level comparisons, the
electronic calendar system compares the job position of the
individual requesting the first calendar event with the job
positions of the conflicting event attendees. If the first calendar
event requester has a hierarchically higher job position than the
conflicting event attendees, the system schedules the first calendar
event and reschedules the conflicting events. Boss '778 para. 7.

03.	Boss '778 determines whether or not an event should be marked to be rescheduled in case the event is subsequently overridden by a subsequent scheduling or rescheduling entry. This is performed responsive to determining that calendar the event is a repeating event and/or with priority information. Boss '778 para. 44.

04.	When Boss '778 finds a scheduling conflict, the calendar program either adjusts the schedule information for the presently entered event or reschedules one or more conflicting events to resolve the conflict. This employs a prioritization mechanism to determine the necessary scheduling/rescheduling. Boss '778 para. 45.

Boss '409

05.	Boss '409 is directed to prioritizing calendar events and, when conflicts arise, applying rules based on context and business values to automate the process of deciding which meetings are more important that [sic, than] others. Boss '409 para. 2.

06.	Any meeting that has been placed on the calendar as a result of an override can be signified in a manner (e.g., a unique color or font) to assist the calendar owner to understand why their calendar was updated. Boss '409 para. 49.

ANALYSIS

Claims 1–25 rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter

The Supreme Court

> 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, []
> determine whether the claims at issue are directed to one of
> those patent-ineligible concepts. [] If so, we then ask, "[w]hat
> else is there in the claims before us? [] To answer that question,
> [] 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. [The Court] 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."

Alice Corp., Pty. Ltd. v CLS Bank Intl, 134 S.Ct. 2347, 2355 (2014)
(citing *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132
S.Ct. 1289 (2012)).

To perform this test, we must first determine whether the claims at issue
are directed to a patent-ineligible concept. The Examiner finds the claims
directed to organizing human activities for meeting scheduling. Final Act. 5.

While the Court in *Alice* made a direct finding as to what the claims were
directed to, we find that this case's claims themselves and the Specification
provide enough information to inform one as to what they are directed to.

The preamble to claim 1 recites that it is a method for making a recurring reservation for a resource. The steps in claim 1 result in displaying a proposed reservation of resources. The Specification at paragraph 1 recites that the invention relates to making recurring reservations. Thus, all this evidence shows that claim 1 is directed to reserving some resource, i.e. scheduling.

It follows from prior Supreme Court cases, and *Bilski* in particular, that the claims at issue here are directed to an abstract idea. Like the risk hedging in *Bilski*, the concept of scheduling is a fundamental business practice long prevalent in our system of commerce. The use of scheduling is also a building block of societal organization. Thus, scheduling, like hedging, is an "abstract idea" beyond the scope of §101. *See Alice Corp. Pty. Ltd.* at 2356.

As in *Alice Corp. Pty. Ltd.*, 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 in the level of abstraction between the concept of risk hedging in *Bilski* and the concept of scheduling at issue here. Both are squarely within the realm of "abstract ideas" as the Court has used that term. *See Alice Corp. Pty. Ltd.* at 2357.

Further, claims involving data collection, analysis, and display are directed to an abstract idea. *Elec. Power Grp. v. Alstom S.A.,* 830 F.3d 1350, 1353 (Fed. Cir. 2016) (holding that "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"); *see also In re TLI*

Commc'ns LLC Patent Litig., 823 F.3d 607, 611 (Fed. Cir. 2016);

FairWarning IP, LLC v. Iatric Sys., Inc., 839 F.3d 1089, 1093–94 (Fed. Cir.

2016). Claim 1, unlike the claims found non-abstract in prior cases, uses

generic computer technology to perform data collection, analysis, and

display and does not recite an improvement to a particular computer

technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837

F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims not abstract because

they "focused on a specific asserted improvement in computer animation").

As such, claim 1 is directed to the abstract idea of receiving, analyzing, and

displaying data.

The remaining claims merely describe what is being reserved, or

rescheduling reservations to minimize fragmentation. We conclude that the

claims at issue are directed to a patent-ineligible concept.

The introduction of a computer into the claims does not alter the analysis

at Mayo step two.

> [T]he mere recitation of a generic computer cannot transform a
> patent-ineligible abstract idea into a patent-eligible invention.
> Stating an abstract idea "while adding the words 'apply it'" is
> not enough for patent eligibility. Nor is limiting the use of an
> abstract idea "'to a particular technological environment.'"
> Stating an abstract idea while adding the words "apply it with a
> computer" simply combines those two steps, with the same
> deficient result. Thus, if a patent's recitation of a computer
> amounts to a mere instruction to "implement[t]" an abstract
> idea "on . . . a computer," that addition cannot impart patent
> eligibility. This conclusion accords with the preemption
> concern that undergirds our §101 jurisprudence. Given the
> ubiquity of computers, wholly generic computer
> implementation is not generally the sort of "additional

feature[e]" that provides any "practical assurance that the
process is more than a drafting effort designed to monopolize
the [abstract idea] itself."

Alice Corp. Pty. Ltd., 134 S.Ct. at 2358 (citations omitted).

"[T]he relevant question is whether the claims here do more than simply
instruct the practitioner to implement the abstract idea [] on a generic
computer." *Alice Corp. Pty. Ltd.,* 134 S.Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the
computer at each step of the process is purely conventional. Using a
computer to receive data, determine availability, and display the result
amounts to electronic data query and retrieval—one of the most basic
functions of a computer. All of these computer functions are well-
understood, routine, conventional activities previously known to the
industry. In short, each step does no more than require a generic computer
to perform generic computer functions.

Considered as an ordered combination, the computer components of
Appellants' method add nothing that is not already present when the steps
are considered separately. Viewed as a whole, Appellants' method claims
simply recite the concept of scheduling as performed by a generic computer.
To be sure, the claims recite doing so by advising one to take in a
reservation request for resources, determine availability, and display a
reservation based on availability. But this is no more than abstract
conceptual advice on the parameters for such scheduling and the generic
computer processes necessary to process those parameters, and do not recite
any particular implementation.

The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. The 13 pages of specification spell out different types of generic equipment and programming languages that might be used, different parameters that might be applicable, and the particular steps such conventional processing would entail based on the concept of creating a schedule based on availability. They do not describe any particular improvement in the manner a computer functions. Instead, the claims at issue amount to nothing significantly more than an instruction to apply the abstract idea of scheduling using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice Corp. Pty. Ltd.* at 2360.

As to the structural claims, they

> are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long "warn[ed] ... against" interpreting § 101"in ways that make patent eligibility 'depend simply on the draftsman's art.'

Alice Corp. Pty. Ltd. at 2360.

We are not persuaded by Appellants' argument that reciting a method by which "a specific resource" of a designated type is identified for each of the instances of the recurring event. App. Br. 12. As the Examiner finds,

> a computed result and output of the result does not amount to "significantly more" as determined by relevant case law. In the present case, the two receiving data steps amount to data

gathering, and the displaying step amounts to data transmission,
all of which are insignificant extra solution activities.

Ans. 3.

The Supreme Court and the Federal Circuit, however, have previously held that such routine computer activities are insufficient for conferring patent eligibility. *See, e.g., Alice,* 134 S. Ct. at 2359 ("[U]se of a computer to obtain data, adjust account balances, and issue automated instructions; all of these computer functions are 'well understood, routine, conventional activit[ies]' previously known to the industry.") As such, merely storing, transmitting, retrieving, and writing data to implement an abstract idea on a computer does not "'transform the nature of the claim' into a patent-eligible application." *Alice,* 134 S. Ct. at 2355.

We are not persuaded by Appellants' argument that that the asserted claims are akin to the claims found patent-eligible in *DDR Holdings, LLC v. Hotels.com, L.P.* 773 F.3d 1245 (Fed. Cir. 2014). Reply Br. 4. In *DDR Holdings,* the Court evaluated the eligibility of claims "address[ing] the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host's website after 'clicking' on an advertisement and activating a hyperlink." *Id.* at 1257. There, the Court found that the claims were patent eligible because they transformed the manner in which a hyperlink typically functions to resolve a problem that had no "pre-Internet analog." *Id.* at 1258. The Court cautioned, however, "that not all claims purporting to address Internet-centric challenges are eligible for patent." *Id.* For example, in *DDR Holdings* the Court distinguished the patent-eligible claims at issue

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from claims found patent-ineligible in *Ultramercial*. *See id.* at 1258–59 (citing *Ultramercial*, 772 F.3d at 715–16). As noted there, the *Ultramercial* claims were "directed to a specific method of advertising and content distribution that was previously unknown and never employed on the Internet before." *Id.* at 1258 (quoting *Ultramercial*, 772 F.3d at 715–16). Nevertheless, those claims were patent ineligible because they "merely recite[d] the abstract idea of 'offering media content in exchange for viewing an advertisement,' along with 'routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet.'" *Id.*

Appellants' asserted claims are analogous to claims found ineligible in *Ultramercial* and distinct from claims found eligible in *DDR Holdings*. The ineligible claims in *Ultramercial* recited "providing [a] media product for sale at an Internet website;" "restricting general public access to said media product;" "receiving from the consumer a request to view [a] sponsor message;" and "if the sponsor message is an interactive message, presenting at least one query to the consumer and allowing said consumer access to said media product after receiving a response to said at least one query." 772 F.3d at 712. Similarly, Appellants' asserted claims recite receiving data, finding data to satisfy criteria, and displaying data. This is precisely the type of activity found ineligible in *Ultramercial*.

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Claims 1–6, 8–13, 15–19, and 21 rejected under 35 U.S.C. § 102(b) as
anticipated by Li

Appellants initially argue claim 15, similar to claim 1, but directed to a
computer program product performing the claim 1 process, and adding
limitations of indicating how to utilize alternate resources within a type of
resource in satisfying all multiple instances within a request. We are not
persuaded by Appellants' argument that "Li has not been shown to teach or
suggest a preference that indicates how to utilize alternate resources in
satisfying all of the multiple instance of a recurring reservation request."
App. Br. 15.

Initially, we construe the added "satisfying all of said multiple instances"
limitation. The Specification, at 13 pages, much as in *Grams*, "does not
bulge with disclosure on those." *In re Grams*, 888 F.2d 835, 840 (Fed Cir
1989). The word "satisfy" does not appear, much less be defined in the
Specification. The ordinary meaning of the word "satisfy" is to fulfill.
Thus, to satisfy multiple instances is to fulfill multiple instances. That is, the
multiple instances are successfully created. This, then is the distinction
between claims 1 and 15.

Li describes accepting a preference in terms of timing, such as the
meeting should occur between Tuesday and Friday every three weeks. Once
the meeting profile has been defined and generated, the profile-resource
matching module searches the pool of virtual resources electronically stored
to compile a list of identified resources satisfying, at least to some degree,
the preferences and/or requirements defined by the meeting profile. Li's
profile-resource matching module generates alternate meeting schedule

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candidates, each comprising a different mix of virtual resources. An arrangement comprising a particular mix of virtual resources for a meeting may have to meet some minimum criteria if it is to be included among the list of meeting schedule candidates. Each of the meeting schedule candidates can be combined by the profile-resource matching module into a single list of meeting schedule candidates, each meeting schedule candidate having an overall score. The different meeting schedule candidates, accordingly, can be rank ordered based upon their overall scores. Thus, Li's preference describes how to use different days as alternate resources in satisfying (fulfilling) the request for multiple meeting instances that meet the preference criteria.

Perhaps sensing this, Appellants go on to contend

> Li appears to describe the ability to express preferences that determine whether and to what extent a particular resource will match a user's need. However, there is not teaching or suggestion of "making a recurring reservation for a resource," "wherein said preference indicates how to utilize alternate resources within said type of resource in satisfying all of said multiple instances within said request."

App. Br. 16. First, this argument is conclusory and is absent a predicate to support this conclusion. Second, it is a non-sequitur. Preferences that determine whether and to what extent a particular resource will match a user's need necessarily describe, at least implicitly, how they will match that need, which is to say how they are to be utilized to meet that need. To the extent Appellants are arguing the absence of plural reservations, that is pervasive in Li's context. To the extent Appellants argue the satisfaction of those needs, Li describes satisfaction as we have construed it.

Appellants argue claim 1 on the basis of claim 15, and the remaining claims on the basis of the independent claims 1 and 15.

Claims 1–3, 8–10, 15–17, and 21 rejected under 35 U.S.C. § 102(e) as anticipated by Chu

As this rejection is cumulative with Li, we do not reach it.

Claims 7, 14, and 20 rejected under 35 U.S.C. § 103(a) as unpatentable over Li

Appellants argue these claims on the basis of the independent claims 1 and 15.

Claims 4–7, 11–14, and 18–20 rejected under 35 U.S.C. § 103(a) as unpatentable over Chu

As this rejection is cumulative with Li, we do not reach it.

Claims 22–25 rejected under 35 U.S.C. § 103(a) as unpatentable over Li, Boss '778, and Boss '409

Clam 22 adjusts a number of reservations to maximize compliance with preferences associated with a plurality of requests for a recurring reservation of a type of resource, where each said preference indicates how to utilize alternate resources within said type of resource in satisfying the corresponding request. Examiner applies Boss '778 which looks to see

whether an event creates a conflict and requires some rescheduling. Final Act. 19–20. We are not persuaded by Appellants' argument that

> Merely applying priority level to resolve a conflict between two events is not remotely the same thing as "a defragmentation function that *adjusts a number of reservations to maximize compliance with preferences associated with a plurality of requests for a recurring reservation of a type of resource.*" (Claim 22). This subject matter is simply beyond the scope and content of the references as cited.

App. Br. 26. As with the prior argument, this is both conclusory and a non-sequitur. Resolving a conflict between events is a subset of maximizing compliance of criteria across those events.

Clam 24 constrains the number of changes in claim 22. Examiner again applies Boss '778. Final Act. 20. Appellants contend Boss '778 fails to describe this. App. Br. 26. Appellants fail to appreciate that claim 24 itself does not constrain the nature or implementation of the constraint. Every computing problem is constrained by its input length. The claim does not make the constraint independent of the inputs.

Claims 22–25 rejected under 35 U.S.C. § 103(a) as unpatentable over Chu, Boss '778, and Boss '409

As this rejection is cumulative with Li, we do not reach it.

CONCLUSIONS OF LAW

The rejection of claims 1–25 under 35 U.S.C. § 101 as directed to non–statutory subject matter is proper.

The rejection of claims 1–6, 8–13, 15–19, and 21 under 35 U.S.C. § 102(b) as anticipated by Li is proper.

The rejection of claims 1–3, 8–10, 15–17, and 21 under 35 U.S.C. § 102(e) as anticipated by Chu is cumulative and not reached.

The rejection of claims 7, 14, and 20 under 35 U.S.C. § 103(a) as unpatentable over Li is proper.

The rejection of claims 4–7, 11–14, and 18–20 under 35 U.S.C. § 103(a) as unpatentable over Chu is cumulative and not reached.

The rejection of claims 22–25 under 35 U.S.C. § 103(a) as unpatentable over Li, Boss '778, and Boss '409 is proper.

The rejection of claims 22–25 under 35 U.S.C. § 103(a) as unpatentable over Chu, Boss '778, and Boss '409 is cumulative and not reached.

DECISION

The rejection of claims 1–25 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED