UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/008,181	01/27/2016	Moumita Sinha	P5668-US	4648

108982	7590	09/24/2020	

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ART UNIT	PAPER NUMBER
3688	

NOTIFICATION DATE	DELIVERY MODE
09/24/2020	ELECTRONIC

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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 MOUMITA SINHA, ABHIMANYU JAIN ASATI,
MIHIR SUDHIR KULKARNI, PANKAJ GUDLANI,
and
ATANU R. SINHA
_____

Appeal 2020-002879
Application 15/008,181[1]
Technology Center 3600
_____

Before JOSEPH L. DIXON, DAVID M. KOHUT, and
JON M. JURGOVAN, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant seeks review under 35 U.S.C. § 134(a) from a Final
Rejection of claims 1–20, which are all the claims pending in the
application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.[2]

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[1] We use the word "Appellant" to refer to "applicant(s)" as defined in 37
C.F.R. § 1.42. The real party in interest is Adobe Inc. (Appeal Br. 3.)

[2] Our Decision refers to the Specification ("Spec.") filed January 27, 2016,
the Final Office Action ("Final Act.") mailed May 1, 2019, the Appeal Brief
("Appeal Br.") filed October 23, 2019, the Examiner's Answer ("Ans.")
mailed January 13, 2020, and the Reply Brief ("Reply Br.") filed March 6,

CLAIMED INVENTION

The claims are directed to systems and methods for estimating a causal impact of a particular item of digital marketing content on a digital marketing outcome, by comparing impacts on users exposed to digital marketing content sequences that include a "first sequence . . . of a plurality of items of digital marketing content. . . . the first sequence includ[ing] the particular item," and a "second sequence . . . constructed of the plurality of items of the digital marketing content by removing the particular item from the first sequence." (Spec. ¶¶ 5, 8; Abstract.)

Claims 1, 9, and 14 are independent claims. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1.   In a digital medium environment, a method implemented by a computing device, the method comprising:
>
> *receiving*, by the computing device, *a user input as selecting a first item of digital marketing content*;
>
> *determining*, automatically and without user intervention by the computing device, *a resulting causal impact of the first item on a digital marketing outcome from data describing provision of the digital marketing content over time, the determining including*:
>
>> *identifying a first sequence of a plurality of items of digital marketing content provided to a first set of users taken from a plurality of users, the first sequence including the first item and a second item from the plurality of items*;
>>
>> *constructing a second sequence of the plurality of items of the digital marketing content, from the first sequence, that includes the second item and removes the first item from the first sequence*;
>>
>> *identifying a second set of users from the plurality of users, the second set of users provided with the second sequence*;

2020.

> *locating a subset of users from the first set of users
> having a characteristic that matches a subset of users from
> the second set of users*;
> *determining a first causal impact of the first item on
> the digital marketing outcome for the subset of the users
> from the first set*;
> *determining a second causal impact of the first item
> on the digital marketing outcome for the subset of the
> users from the second set*; *and*
> *determining whether the resulting causal impact of
> the first item of digital marketing content has a negative
> causal impact on other items of the plurality of digital
> marketing content on achieving the digital marketing
> outcome based on the first and second causal impacts*; and
> *outputting*, by the computing device, *the resulting causal
> impact indicating whether the resulting causal impact has the
> negative causal impact on the other items of the plurality of
> digital marketing content on achieving the digital marketing
> outcome* for display in a user interface.

(Appeal Br. 39–46 (Claims App.) (emphases added).)

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Louviere et al.	US 6,934,748 B1	August 23, 2005
Kumar et al.	US 2007/0094066 A1[3]	April 26, 2007
David Chan et al., *Evaluating Online Ad Campaigns in a Pipeline: Causal Models at Scale*, Proceedings of the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining 7–15 (2010)		

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[3] The Examiner's rejection refers to "Kumar et al. (Pub. No.: US 2001/0025309)" (*see* Final Act. 13), however, US 2001/0025309 A1 does not include Kumar as an inventor. The Examiner's quotes from "Kumar" (*see* Final Act. 16) are actually from US 2007/0094066 A1 (to Kumar et al.), which was cited by the Examiner in rejections asserted in a First Action

REJECTIONS

Claims 1–20 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. (Final Act. 2–13.)

Claims 1–7 and 9–19 stand rejected under 35 U.S.C. § 103 based on Louviere and Kumar. (Final Act. 13–20.)[4]

Claims 8 and 20 stand rejected under 35 U.S.C. § 103 based on Louviere, Kumar, and Chan. (Final Act. 20–21.)

ANALYSIS

§ 101 Rejection

Patent eligibility is a question of law that is reviewable *de novo*. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). Accordingly, we review the Examiner's § 101 determinations concerning patent eligibility under this standard.

Patentable subject matter is defined by 35 U.S.C. § 101, as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In interpreting this statute, the Supreme Court emphasizes that patent protection should not preempt "the basic tools of scientific and technological work." *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) ("*Benson*"); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012)

Interview Pilot Program Pre-Interview Communication dated April 5, 2018.
[4] The Examiner's rejection incorrectly refers to pre-America Invents Act ("pre-AIA") § 103(a) instead of AIA § 103. (*See* Final Act. 13.) We are aware of no prejudice to Appellant or the Examiner resulting from this error, and thus we consider this to be harmless error.

("*Mayo*"); *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217–18 (2014) ("*Alice*"). The rationale is that patents directed to basic building blocks of technology would not "promote the progress of science" under the U.S. Constitution, Article I, Section 8, Clause 8, but instead would impede it. Accordingly, laws of nature, natural phenomena, and abstract ideas, are not patent-eligible subject matter. *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1346 (Fed. Cir. 2017) (citing *Alice*, 573 U.S. at 216–17).

The Supreme Court set forth a two-part test for subject matter eligibility in *Alice* (573 U.S. at 217–19). The first step is to determine whether the claim is directed to a patent-ineligible concept. *Id.* (citing *Mayo*, 566 U.S. at 76–77). If so, then the eligibility analysis proceeds to the second step of the *Alice/Mayo* test in which we "examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 72, 79). There is no need to proceed to the second step, however, if the first step of the *Alice/Mayo* test yields a determination that the claim is directed to patent eligible subject matter.

The Patent Office has recently revised its guidance for how to apply the *Alice/Mayo* test in the *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (January 7, 2019) (the "Revised Guidance"). Under the Revised Guidance, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, mental processes, or certain methods of organizing human activity such as a fundamental economic practice or managing personal behavior or relationships or interactions between people); and

(2) additional elements that integrate the judicial exception into a practical application (*see* Manual of Patent Examining Procedure ("MPEP") § 2106.05(a)–(c), (e)–(h)). 84 Fed. Reg. at 51–52, 55.

A claim that integrates a judicial exception into a practical application applies, relies on, or uses the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception. Revised Guidance, 84 Fed. Reg. at 54. When the judicial exception is so integrated, then the claim is not directed to a judicial exception and is patent-eligible under § 101. Revised Guidance, 84 Fed. Reg. at 54. Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then evaluate whether the claim provides an inventive concept. Revised Guidance, 84 Fed. Reg. at 56; *Alice*, 573 U.S. at 217–19, 221. Evaluation of the inventive concept involves consideration of whether an additional element or combination of elements (1) adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present; or (2) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.

Alice/Mayo—Step 1 (Abstract Idea)
Step 2A–Prongs 1 and 2 identified in the Revised Guidance

Step 2A—Prong 1 (Does the Claim Recite a Judicial Exception?)

Turning to the first step of the *Alice* inquiry (*Step 2A, Prong 1 of the Revised Guidance*), the Examiner finds independent claim 1 (and similarly,

independent claims 9 and 14) is directed to an abstract idea because the
claim

> [is] directed to the abstract idea of estimating resulting causal
> impact of a particular item selected by a user as part of a
> marketing campaign based on presenting the particular item in a
> first sequence and not presenting it in a second sequence to sets
> of users,

which is a process performable in the human mind or with pen and paper,
and also a method of organizing human activity through "commercial
interactions (including advertising, marketing or sales activities or
behaviors)." (Final Act. 2–4, 6; Ans. 6.) Particularly, the Examiner finds
the claims are directed to a method of organizing human activity because
"the claims pertain to studying the effects of a marketing item on other
marketing items by presenting it to sets of users." (Ans. 6; Final Act. 6
(citing *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d
1363 (Fed. Cir. 2015)).)

Appellant contends the Examiner erred in rejecting claim 1 under
35 U.S.C. § 101 as directed to non-statutory subject matter because the claim
is not directed to an abstract idea. (Appeal Br. 16–28.) Particularly,
Appellant contends claim 1 is not directed to a mental process because

> it is not practical for the human mind to identify a sequence of a
> plurality of items of digital marketing content that includes a
> selected item, and additionally identify that the same sequence
> has been provided to a certain set of users especially when
> confronted with the vast amounts of data involved in identifying
> these sequences.

(Appeal Br. 19–20; *see also* Reply Br. 3–4.) Appellant also argues claim 1
is not directed to a method of organizing human activity because the claimed

identifying a first sequence and the claimed determining whether the resulting causal impact of the first item has a negative causal impact on other items "are **not commercial or legal interactions**." (Appeal Br. 21–22.) Appellant submits, "although the claims do recite digital marketing content, the claims are not directed to digital marketing content but rather determining the potential negative causal impact of an item and other items in the sequence." (Reply Br. 4.)

Appellant's arguments do not persuade us that the Examiner erred in finding claim 1 recites an abstract idea and, therefore, we concur with the Examiner's conclusion that the claim recites an abstract idea of estimating a resulting causal impact or effectiveness of advertising items used in a marketing campaign, which is a process performable in the human mind or with pen and paper. (Final Act. 2–3; Ans. 4–6.)

In particular, for *Step 2A*, *Prong 1*, of the Revised Guidance, we agree with the Examiner and find that the emphasized portions of claim 1, reproduced above, recite elements that fall within the abstract idea grouping of mental processes. (*See* Final Act. 3; Ans. 4–5.) Specifically, we agree with the Examiner that claim 1 sets forth a process performable in the human mind or with pen and paper, the process *collecting/gathering information* ("receiving" step), *analyzing the information* (claimed "determining . . . a resulting causal impact" by "identifying a first sequence," "constructing a second sequence," "identifying a second set of users," "locating a subset of users," "determining a first causal impact," "determining a second causal impact," and "determining whether the resulting causal impact of the first item of digital marketing content has a negative causal impact on other items"), *and providing results of the collection and analysis* ("outputting . . .

the resulting causal impact"). (*See* Ans. 4–5.) These steps of claim 1 do not require "*vast amounts of data* involved in identifying the[] sequences" as Appellant argues. (*See* Appeal Br. 20 (emphasis added); Ans. 4.) Under its broadest reasonable interpretation, claim 1 requires identifying a first sequence of at least three digital marketing items and a second sequence of at least two of the at least three items, identifying subsets of at least two users from a first set of users and from a second set of users, determining impacts of a marketing item for the at least two users in the two subsets, and determining a resulting causal impact from the two impacts (e.g., by comparing the impacts). Although claim 1 recites a "computing device" performing the claimed steps, the underlying operations recited in the claim are acts that could be performed mentally and by pen and paper, without the use of a computer or any other machine. (Ans. 4–5.)

Our reviewing court has concluded that mental processes include similar concepts of collecting, analyzing, and outputting, data. *See Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) (the Federal Circuit held "the concept of . . . collecting data, . . . recognizing certain data within the collected data set, and . . . storing that recognized data in a memory" ineligible); *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes). Thus, we agree with the Examiner that claim 1 recites an abstract idea of a mental process.

We also agree with the Examiner that claim 1 recites elements that fall within the abstract idea grouping of certain methods of organizing human

activity. (*See* Final Act. 3, 6; Ans. 6.) Specifically, we agree with the Examiner that claim 1 sets forth the human activity of "studying the effects of a marketing item on other marketing items by presenting it to sets of users" in order to tailor marketing content to users, which is a form of "commercial interactions (including advertising, marketing or sales activities or behaviors)" discussed in the Revised Guidance. (Ans. 6; Final Act. 6.) For example, identifying and constructing sequences of digital marketing items and determining whether a resulting causal impact of a digital marketing item has a negative causal impact on other items (as recited in claim 1) recite advertising research activities that identify ads for effective advertising campaigns. *See Affinity Labs of Texas, LLC v. Amazon.com*, 838 F.3d 1266, 1269, 1271 (Fed. Cir. 2016) ("'customizing information based on . . . information known about the user' is an abstract idea. . . . tailoring of content based on information about the user . . . is an abstract idea that is as old as providing different newspaper inserts for different neighborhoods" (citing *Intellectual Ventures I LLC*, 792 F.3d at 1363, 1369)). These steps of claim 1 relate to "[c]ertain methods of organizing human activity" including, *inter alia*, "commercial or legal interactions." *See* Revised Guidance, 84 Fed. Reg. at 52. Thus, we agree with the Examiner that claim 1 recites an abstract idea of a method of organizing human activity.

Having determined that claim 1 recites an abstract idea (a mental process, and a method of organizing human activity) identified in the Guidance, we turn to Step 2A, Prong Two, of the Guidance to determine whether the abstract idea is integrated into a practical application. *See* Revised Guidance, 84 Fed. Reg. at 54–55.

Step 2A—Prong 2 (Integration into Practical Application)

Under *Revised Step 2A, Prong Two* of the Revised Guidance, we recognize that claim 1 includes additional elements such as a digital medium environment, a computing device, and a user interface. Furthermore, our review of Appellant's Specification finds that the terms "digital medium environment," "computing device," and "user interface" are nominal. Appellant's Specification indicates that the "digital medium environment," "computing device," and "user interface" (*see* Spec. ¶¶ 26–27, 62, 65–67, 71) of claim 1 do not recite specific types of additional elements or their operations. As a result, these additional elements are not enough to distinguish the steps of claim 1 from describing a mental process and a method of organizing human activity.

Appellant argues claim 1 is not directed to a mental process because "outputting a resulting causal impact 'for display in a user interface' is virtually impossible to be performed in the human mind, much less practically performed in the human mind." (Appeal Br. 20.) Appellant's argument is unpersuasive because the claim merely uses the computing elements (computing device and display/user interface) in an ordinary manner, and for their ordinary functions, to perform operations (data manipulation and output) readily performable in the human mind or with pen and paper. (Ans. 4–5; *see Intellectual Ventures I LLC*, 792 F.3d at 1370 ("merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea"); *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010) ("In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the

claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations.").) The claimed outputting of the resulting causal impact for display in a user interface is insignificant post-solution activity that does not help integrate the recited abstract idea into a practical application of the abstract idea. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241–42 (Fed. Cir. 2016) (addressing insignificant post-solution activity); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363–64 (Fed. Cir. 2015) (addressing insignificant pre-solution activity).

Appellant also argues claim 1 recites additional elements that integrate a judicial exception into a practical application because the claim is analogous to the claims in *DDR*. (Appeal Br. 24–27 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)); Reply Br. 5–7.) In particular, Appellant argues claim 1 addresses "a digitally-rooted challenge, which . . . involves estimating a causal impact of a particular item of digital marketing content on a digital marketing outcome," and provides "a specific implementation of a solution to the problem of estimating a causal impact of a particular item of digital marketing content." (Appeal Br. 25; Reply Br. 7.)

We remain unpersuaded by Appellant's argument. The Federal Circuit found *DDR's* claims are patent-eligible under § 101 because *DDR's* claims: (1) do not merely recite "the performance of some business practice known from the pre-Internet world" previously disclosed in *Bilski* and *Alice*; but instead (2) provide a technical solution to a technical problem unique to the Internet, *i.e.*, a "solution . . . necessarily rooted in computer technology

in order to overcome a problem specifically arising in the realm of computer networks." *DDR*, 773 F.3d at 1257. Appellant's determination of a digital marketing item's impact does not provide *a technical solution to a technical problem* unique to the Internet, *i.e.*, a "solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *See id*. Appellant's claim 1 solves a *business problem* (identifying ads that may appeal to consumers and increase sales, and identifying ads that may have the opposite effect) by providing a *business solution and a financial benefit* to a merchant or company (providing/identifying ads for effective advertising campaigns). (*See* Spec. ¶¶ 1, 18, 22; Ans. 10–11.) Although claim 1 evaluates *digital* marketing items, the claim does not demonstrate a use of computing elements that in combination perform *functions that are not merely generic*, as the claims in *DDR*. *See DDR Holdings*, 773 F.3d at 1258. Appellant's claim 1 merely recites generic automation of operations performable in the human mind or with pen and paper (e.g., operations that evaluate consumers' response to ads, such as ad view counts, ad clicks, and purchases made after viewing ads). (*See* Spec. ¶¶ 4, 24; Ans. 10–11.) *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*."); *OIP Techs.*, 788 F.3d at 1363 ("[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.").

Accordingly, under Step 2A, Prong 2, we conclude that claim 1, and similarly worded independent claims 9 and 14 argued for the same reasons

(*see* Appeal Br. 28–30, Reply Br. 7) do not recite "additional elements that integrate the judicial exception into a practical application," and are directed to an abstract idea in the form of a mental process and a method of organizing human activity. Revised Guidance, 84 Fed. Reg. at 52, 54. Therefore, we proceed to *Step 2B*, *The Inventive Concept*.

Alice/Mayo—Step 2 (Inventive Concept)
Step 2B identified in the Revised Guidance

Step 2B of the *Alice* two-step framework requires us to determine whether any element, or combination of elements, in the claim is sufficient to ensure that the claim amounts to significantly more than the judicial exception. *Alice*, 573 U.S. at 221; *see also* Revised Guidance, 84 Fed. Reg. at 56. As discussed above, claim 1 includes additional elements such as a "digital medium environment," a "computing device," and a "user interface." We agree with the Examiner's findings that the additional elements of claim 1, when considered individually and in an ordered combination, correspond to nothing more than generic and well-known components used to implement the abstract ideas. (*See* Final Act. 7–13.) In other words, we find that the additional elements, as claimed, are well-understood, routine, and conventional and "behave exactly as expected according to their ordinary use." (*See In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 615 (Fed. Cir. 2016); Final Act. 9–10.) Thus, implementing the abstract idea with these generic and well-known components "fail[s] to transform that abstract idea into a patent-eligible invention." *Alice*, 573 U.S. at 221. Therefore, we agree with the Examiner

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that claim 1 does not provide significantly more than the abstract ideas themselves.

Therefore, because claim 1 is directed to the abstract ideas of a mental process and a method of organizing human activity, and does not provide significantly more than the abstract ideas themselves, we agree with the Examiner that claim 1 is ineligible for patenting and affirm the Examiner's rejection of claim 1 under 35 U.S.C. § 101, and claims 2–8 argued for their dependency. (Appeal Br. 30.) We also sustain the Examiner's § 101 rejection of independent claims 9 and 14 argued for the same reasons as claim 1, and claims 10–13 and 15–20 argued for their dependency. (Appeal Br. 30; Reply Br. 7.)

§ 103 Rejections

With respect to independent claim 1, the Examiner finds Louviere's combinations of content elements in content (15) that is presented to users to determine "**content combinations or treatments worthy of being used**" and to "**remove**[] information about unsuccessful content combinations or treatments," teach the claimed (i) determining of first and second causal impacts of a first item on a digital marketing outcome for first and second user subsets, and (ii) determining whether the resulting causal impact of the first item of digital marketing content has a negative causal impact on other digital marketing content items, as claimed. (Final Act. 13–15 (citing Louviere 5:9–54, 9:2–10:9, 10:54–11:6, 20:60–21:9, 24:47–58, 26:13–27:7); Ans. 14–16.) The Examiner acknowledges "**Louviere expressly does not disclose** sequence, i.e. marketing content items arranged in a sequence. . . . [but] **Kumar teaches** sequence, i.e. marketing content items arranged in a

sequence." (Ans. 17 (citing Kumar ¶¶ 7, 117, 120, 155, 177, 229–236, 378–
380); *see also* Final Act. 15–16.) The Examiner reasons:

> As one would want to analyze sequential purchase patterns or
> behavior associated with products, therefore it would be obvious
> to person having ordinary skill in the art (hereinafter PHOSITA)
> before the effective filing date of the invention with <u>motivation</u>
> to provide appropriate targeted marketing in form
> recommendations based on sequence based behavior or purchase
> pattern.

(Ans. 17 (citing Kumar ¶¶ 177, 403); *see also* Final Act. 16.) We do not
agree.

We agree with Appellant that Louviere and Kumar, alone or in
combination, fail to teach or suggest *determining whether a resulting causal
impact of a first item of digital marketing content has a negative causal
impact on other items of the plurality of digital marketing content based on
first and second causal impacts* determined from (1) *a first sequence
including first and second items of digital marketing content* and (2) *a
second sequence of items constructed by removing the first item from the
first sequence while keeping the second item from the first sequence*, as
recited in claim 1. (Appeal Br. 31–32, 35–36; Reply Br. 8–11.)

Appellant's Specification explains that *a sequence of a plurality of
items of digital marketing content* is a group of advertisements (e.g., "emails,
advertisements included in webpages, webpages themselves") provided to
users sequentially/in temporal order. (*See* Spec. ¶¶ 18, 24, 30, 34, 39, 43.)
For example, a first sequence of a plurality of items of digital marketing
content may include a sequence of promotional emails "A," "B," "C," "T,"
"D," "E," and "F," and a second sequence of the plurality of items of digital
marketing content may include a sequence of promotional emails "A," "B,"

"C," "D," "E," and "F," but does not include email "T" (i.e., a "first item"

has been removed from the first sequence). (*See* Spec. ¶ 43.) As Appellant

explains, Louviere does not expose users *to sequences of digital marketing*

content (*sequences of ads*). (Appeal Br. 31–32, 35.) Instead, Louviere

exposes users to individual "treatments" or "content structures," where a

"treatment" or "content structure" represents "the particular way in which

the content is formatted." (*See* Louviere 5:16–25, 9:4–6, 26:34–60.) For

example, the visual characteristics ("content elements") of a webpage form a

"treatment" to which one set of users is exposed:

> Each separate combination and/or formatting of content **15**
> constitutes a content structure or treatment. A content structure
> can be, for example, a particular implementation of a web page
> at a given moment. More specifically, at the given instance of
> time, the web page may contain particular text, icons, images,
> and/or video located at particular positions on the screen,
> particular visual background shading or color, particular borders
> for dividing up the screen, particular audio (music or speech),
> and the like.

(*See* Louviere 5:15–25, 9:13–40.)

Thus, Louviere does not expose users to *sequences of digital*

marketing content (*sequences of ads*) and does not determine differential

effects of sequences of ads on users (as recited in claim 1). (Appeal Br. 35;

Reply Br. 8–11.) Instead, Louviere presents one ad (one treatment) to one

set of users, and a slightly different ad (e.g., with a different background

color) to another set of users, and determines the effect of each ad on the

exposed users. (*See* Louviere 26:34–60.)

Kumar does not make up for the above-noted deficiencies of

Louviere, as Kumar does not teach or suggest comparing impacts *of*

sequences of items of digital marketing content, either. (Appeal Br. 36–37; Reply Br. 9, 11–12.) Contrary to the Examiner's assertion that "**Kumar teaches** sequence, i.e. *marketing content items arranged in a sequence*" (*see* Ans. 17 (emphasis added)), Kumar merely studies *sequences of purchases* made by customers. (*See* Kumar ¶¶ 7, 117, 120, 155.) In particular, Kumar explains that a "retail process may be summarized as Customers buying products at retailers in successive visits, each visit resulting in the transaction of a set of one or more products (market basket)," with each customer's transactions "represented by the time-stamped sequence of market baskets" such as

> two products [that] may be purchased in the same visit, e.g. milk and bread, or one product [that] may be purchased three months after another, e.g. a printer purchased three months after a PC, or a product [that] might be purchased within six months of another product, e.g. a surround sound system may be purchased within six months of a plasma TV.

(Kumar ¶¶ 36, 117, 120, 155.) Kumar then provides discounted "product bundles" to customers. (*See* Kumar ¶¶ 7, 324–325 ("buy product A and get product B half off," "buy the entire bundle for 5% less," and "capture the latent intentions of customers" with "product assortment promotions").)

Thus, Kumar does not manipulate sequences of items of digital marketing content, and does not compare a sequence of digital marketing content including a particular advertisement, with a matching sequence that does not have that particular advertisement. (Appeal Br. 36–37.) In addition, the Examiner has not provided an adequate reason based on rational underpinnings to explain why a skilled artisan familiar with Kumar and Louviere, would have been led to *compare sequences of digital*

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marketing content items (sequences of ads), as in claim 1. (*Id.* at 33–34, 37.)
As discussed *supra*, neither Louviere nor Kumar studies or determines
differential effects of ad sequences on consumers. *See In re Chaganti*, 554
Fed. Appx. 917, 922 (Fed. Cir. 2014) ("It is not enough to say that . . . to do
so would 'have been obvious to one of ordinary skill.' Such circular
reasoning is not sufficient—more is needed to sustain an obviousness
rejection."). The Examiner also has not shown that the additional teachings
of Chan make up for the above-noted deficiencies of Louviere and Kumar.

Thus, for the reasons set forth above, we do not sustain the
Examiner's obviousness rejection of independent claim 1, and claims 2–8
dependent therefrom. We also do not sustain the Examiner's obviousness
rejection of independent claims 9 and 14 (argued for substantially the same
reasons as claim 1 and reciting similar limitations), and claims 10–13 and
15–20 dependent therefrom. (Appeal Br. 37–38.)

CONCLUSION

The Examiner's rejection of claims 1–20 under 35 U.S.C. § 101 is
AFFIRMED.

The Examiner's rejection of claims 1–20 under 35 U.S.C. § 103 is
REVERSED.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C.§	Reference(s)/ Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	

Claims Rejected	35 U.S.C.§	Reference(s)/ Basis	Affirmed	Reversed
1–7, 9–19	103	Louviere, Kumar		1–7, 9–19
8, 20	103	Louviere, Kumar, Chan		8, 20
Overall Outcome			**1–20**	

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision 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