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DETAILED ACTION

The present application, filed on 4/7/2016, is being examined under the AIA first inventor to file provisions.

The following is a final Office Action in response to Applicant's amendments filed on 12/2/2019.

- a. Claims 9, 11, 13-14, 16-19 are amended
- b. Claims 1-8, 10, 15, 20 are cancelled

Overall, **Claims 9, 11-14, 16-19** are pending and have been considered below.

Claim Rejections - 35 USC § 101

35 USC 101 reads 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.

Claims 9, 11-14, 16-19 are rejected under 35 USC 101 because the claimed invention is not directed to patent eligible subject matter. The claimed matter is directed to a judicial exception (i.e. an abstract idea not integrated into a practical application) without significantly more.

Per Step 1 and Step 2A of the two-step eligibility analysis, independent Claim 9, Claim 14 and Claim 19 and the therefrom dependent claims are directed respectively to a system, to a computer implemented method and to computer executable instructions stored on a non-transitory storage medium. Thus, on its face, each such independent claim and the therefrom dependent claims are directed to a statutory category of invention.

However, Claim 14, (which is repeated in Claims 9, 19) is rejected under 35 U.S.C. 101 because the claim is directed to an abstract idea, a judicial exception, without reciting additional elements that integrate the judicial exception into a practical application.

The claim recites automatically displaying a first image, automatically displaying a second image, receiving an indication of the selection operation, select the first image based on a certain time condition, select the second image based on a certain time condition. The limitations, as drafted, constitute a process that covers performance of the limitations in the mind, but for the recitation of generic computer components. That is, other than reciting generic computer components, nothing in the claim element precludes the steps from practically being performed in the mind. For example, "automatically displaying a first image," "automatically displaying a second image" encompasses a user manually displaying/showing a succession of images (reads on first image, second image) by flipping through a deck of cards with images. Similarly, the limitation "receiving an indication of the selection operation" as drafted, is a process that, under its broadest reasonable interpretation, covers a person in the audience manually or verbally making a selection for an image card while the user continues flipping the image cards. Similarly, the limitations "select the first image based on a certain time condition" and "select the second image based on a certain time condition" encompass then user manually or verbally making the selection of the first image or the second image, based on the audience selection. If a claim limitation, under its broadest reasonable interpretation, covers performance of the limitation in the mind, but for the recitation of generic computer components, then it falls within the "Mental Processes – Concepts Performed in the Human Mind (e.g. observation, evaluation, judgement, opinion)" grouping of abstract ideas. Accordingly, the claim recites an abstract idea.

This abstract idea is not integrated into a practical application. In particular, stripped of those claim elements that are directed to an abstract idea, the remaining positively recited elements of the independent claims are directed to obtaining the first information, providing the first information, obtaining the second information, providing the second information. These claim elements amount to no more than insignificant extra-solution activity (MPEP 2106.05(g)).

The non-positively recited claim elements are the prearranged intervals, the first interval, the first image, the second information, the predetermined value. While these descriptive elements may provide further helpful context for the claimed invention, they do not serve to integrate the abstract idea into a practical application.

The recited computing elements, i.e. one memory, one processor, are recited at a high-level of generality (i.e. as a generic computing device performing generic computer functions of obtaining data, interpreting the obtained data and providing results), such that they amount to no more than mere instructions to apply the exception using generic computer components.

Accordingly, these additional claim elements do not integrate the abstract idea into a practical application, because they do not impose any meaningful limits on practicing the abstract idea. Per Step 2A, the claim is directed to an abstract idea not integrated into a practical application.

Step 2B of the eligibility analysis concludes that the claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception. Stripped of those claim elements that are directed to an abstract idea, not integrated into a practical application, the remaining positively recited elements of the independent claims are directed to obtaining the first information, providing the first information, obtaining the second information, providing the second information. When considered individually, these additional claim elements represent “Insignificant Extra-Solution (Pre-Solution and/or Post-Solution) Activity”, i.e. activities incidental to the primary process or product that are merely a nominal or tangential addition to the claims. Specifically, the limitations are considered post-solution activity because they are mere outputting or post-processing results from executing the abstract idea. (MPEP 2106.05(g)) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

Furthermore, the independent claims contain descriptive limitations, not positively recited limitations of elements found in the independent claims and addressed above, such as describing the nature, structure and/or content of the prearranged intervals, the first interval, the first image, the second information, the predetermined value. However, these elements do not require any steps or functions to be performed and thus do not involve the use of any computing functions. While these descriptive elements may provide further helpful context for the claimed invention, these elements do not serve to confer subject matter eligibility to the claimed invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention.

After stripping away the abstract idea claim elements, the additional positively recited steps and descriptive claim elements, the only remaining elements of the independent claims are directed to one memory, one processor. When considered individually, these additional claim elements serve merely to implement the abstract idea using computer components performing computer functions. They do not constitute “Improvements to the Functioning of a Computer or to Any Other Technology or Technical Field”. (MPEP 2106.05(a)) It is readily apparent that the claim elements are not directed to any specific improvements of any of these areas.

When the independent claims are considered as a whole, as a combination, the claim elements noted above do not amount to any more than they amount to individually. The operations appear to merely apply the abstract concept to a technical environment in a very general sense – i.e. a computer receives information from another computer, processes that information and then sends a response based on processing results. The most significant elements of the claims, that is the elements that really outline the inventive elements of the claims, are set forth in the elements identified as an abstract idea. Therefore, it is concluded that the elements of the independent claims are directed to one or more abstract ideas and do not amount to significantly more. (MPEP 2106.05)

Further, Step 2B of the analysis takes into consideration all dependent claims as well, both individually and as a whole, as a combination.

Dependent Claim 11 (which is repeated in Claim 16) is not directed to any additional abstract ideas, but is directed to an additional claim element such as to displaying a confirmation screen to the user. When considered individually, the limitation represents Insignificant Extra-Solution (Pre-Solution and/or Post-Solution) Activity”, i.e. activities incidental to the primary process or product that are merely a nominal or tangential addition to the claims. Specifically, the limitation is considered pre-solution activity because it is mere gathering or pre-processing data/information in conjunction with the abstract idea. (see MPEP 2106.05(g)) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

Dependent Claim 11 (which is repeated in Claim 16) is not directed to any additional abstract ideas, but is directed to an additional claim element such as to receiving a second selection. Dependent Claim 12 (which is repeated in Claim 17) is not directed to any additional

abstract ideas, but is directed to additional claim elements such as to determining the second time. Dependent Claim 13 (which is repeated in Claim 18) is not directed to any additional abstract ideas, but is directed to additional claim elements such as to obtain the first information. These limitations have already be determined to be part of the identified abstract idea.

Moreover, the claims in the instant application do not constitute significantly more also because the claims or claim elements only serve to implement the abstract idea using computer components to perform computing functions (*Enfish*, MPEP 2106.05(a)). Specifically, the computing system encompasses general purpose hardware and software modules, as disclosed in the application specification in fig1, fig2, fig4 and [0007]-[0027], including among others user terminal, web server, advertisement delivery system, communication controller, main controller, advertisement information manager, log manager, selection manager, advertisement database, log database.

When the dependent claims are considered as a whole, as a combination, the additional elements noted above appear to merely apply the abstract concept to a technical environment in a very general sense – i.e. a computer receives information from another computer, processes that information and then sends a response based on processing results. The most significant elements of the claims, that is the elements that really outline the inventive elements of the claims, are set forth in the elements identified in the independent claims as an abstract idea. The fact that the computing devices are facilitating the abstract concept is not enough to confer statutory subject matter eligibility. In sum, the additional elements do not serve to confer subject matter eligibility to the invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention. Therefore, it is concluded that the dependent claims of the instant application do not amount to significantly more either. (see MPEP 2106.05)

In sum, Claims 9, 11-14, 16-19 are rejected under 35 USC 101 as being directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112(a)
Written Description (Possession)

The following is a quotation of 35 U.S.C. 112(a):

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9, 11-14, 16-19 are rejected under 35 USC 112(a) as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 9, 14, 19 are rejected for reciting the subject matter "third time occurred in less time after the second time than required to form an intention to select the second image" which is not adequately described in the specification, in the drawings or in the original set of claims to satisfy the requirements as described in MPEP 2163.05 V: "While there is a presumption that an adequate written description of the claimed invention is present in the specification as filed, *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976), a question as to whether a specification provides an adequate written description may arise in the context of an original claim. An original claim may lack written description support when (1) the claim defines the invention in functional language specifying a desired result but the disclosure fails to sufficiently identify how the function is performed or the result is achieved ..." Further "Even if a claim is supported by the specification, the language of the specification, to the extent possible, must describe the claimed invention so that one skilled in the art can recognize what is claimed. The appearance of mere indistinct words in a specification or a claim, even an original claim, does not necessarily satisfy that requirement. *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, 968, 63 USPQ2d 1609, 1616 (Fed. Cir. 2002) (holding that generic claim language appearing in *ipsis verbis* in the original specification did not satisfy the written description requirement)."

In the instant situation, the application specification even does not attempt to disclose the function. Therefore, it is not clear how the time required to form an intention to select an image is measured. No further information, like calculation method or algorithm is provided; i.e. HOW the function of measuring time is performed. Therefore, the specification discloses neither the necessary structure, nor the necessary algorithm to perform the function, i.e. HOW the calculation is performed.

The question is, given the disclosure, would a POSITA conclude that the inventor was in possession of the term "third time occurred in less time after the second time than required to form an intention to select the second image" in order to cause a system to perform the

functions? The answer is clearly "no." It looks as if the invention recites terms that have neither structure nor algorithm.

Therefore, the subject matter was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

For examination purpose, Examiner will interpret "third time occurred in less time after the second time than required to form an intention to select the second image" as any type of calculation, which is what the prior art of record discloses. The reference is provided for compact prosecution purpose.

The remainder of the claims are rejected by virtue of dependency.

Response to Amendments/Arguments

Applicant's remarks and arguments have been fully considered.

Applicant respectfully disagrees with the OA conclusions and asserts that the presented claims fully comply with the requirements of 35 U.S.C. § 101. Further, Applicant is of the opinion that the prior art fails to teach Applicant's invention.

Examiner respectfully disagrees with the former.

With respect to Applicant's Remarks as to the claims being rejected under 35 USC § 101.

Applicant submits:

A. The pending claims are not directed to a judicial exception.

B. The pending claims contain an inventive concept. Furthermore, Applicant asserts that the Office has failed to meet its burden to establish that the pending claims do not contain an inventive concept.

Examiner responds – The arguments have been considered in light of Applicants' amendments to the claims. The arguments ARE NOT PERSUASIVE. Therefore, the rejection is maintained.

The instant claims, as a whole, do not amount to significantly more than the abstract idea itself. This is because the claims

(a) do not effect an improvement to another technology or technical field;

(b) do not amount to an improvement to the functioning of a computer itself;

(c) do not move beyond a general link of the use of an abstract idea to a particular technological environment.

The claims merely amount to the application or instructions to apply the abstract idea on a generic computer, and are considered to amount to nothing more than requiring a generic system built around a computer with user interfaces to merely carry out the abstract idea itself. As such, the claims, when considered as a whole, are nothing more than the instruction to implement the abstract idea in a particular, albeit well-understood, routine and conventional technological environment.

More specific:

Examiner points out that, given the extensive amendments to the claims, Applicant's arguments and remarks pertaining to the eligibility rejections are by and large obsolete. Regardless, Examiner will try to answer as many arguments and remarks as possible, in the interest of advancing prosecution.

Applicant submits "'A PHOSITA would view this problem as something that cannot be solved in the human mind, because the delay of the human mind and human physical coordination are a cause of the problem.'" Examiner has carefully considered, but doesn't find Applicant's arguments persuasive. Examiner argues that the process can be very well covered in the human mind (note: "in the human mind" covers in this argumentation any type of manual, visual or verbal action, as result of human judgment). By way of example: a customer steps into a store and asks for a certain type of fabric. The salesperson puts a deck with a multitude of fabrics on the counter and begins to flip through the fabrics by successively turning the corner of the next fabric. The customer watches attentively. The salesperson waits for a "sign" from the customer. At a certain point the customer says "this one." However, the salesperson is not sure if "this one" refers to the piece of fabric last shown (the outgoing piece) or to the piece of fabric that to be shown (the incoming piece), for customer's interjection came during the flip time from one piece of fabric to the next one.

At this point in time, the sales person has two options: (a) to double check with the customer or (b) to "second guess" the customer by assessing if the interjection "this one" came closer in time to the outgoing piece of fabric or the coming piece of fabric. Based on experience,

the salesperson, with a high probability, can guess right. One can experience similar situation all the time in numerous areas of real life.

The statement "... because the delay of the human mind and human physical coordination are a cause of the problem," although being in itself correct, does not mean that only the computer is the solution to this problem (something extrinsic to the "human mind and human physical coordination"). Again by way of example – continuing with the example just presented, the salesperson could very well decide to slow down the flipping pace, so that the customer will have enough time to decide. Furthermore, the salesperson could decide to wait for an acknowledgement from the customer before flipping to the next piece of fabric. In the latter situation, the confusion possibility is practically eliminated.

It is true that, generally, computerizing a process will allow to speed up that process. However, in the computerized version, it is expected that all steps are computerized (similarly, in the "manual" version, all steps should be manual). Attempting to mix the two types of processes, i.e. computerized and manual, will lead to false problems and logic fallacies. In this specific case, the argumentation fallacy is to interject into the computerized process, arguments about the capability of the human mind and to conclude that the combination of computerized process steps and human mind steps would not "work" properly.

In sum, the process disclosed in the instant application is the computerized version of a routine process executed in the human mind, and therefore, based on the 2019 PEG, an abstract idea. The problem the instant application tries to solve, has been already solved in the human mind realm, as shown in the above example. This solution can be easily computerized as well, as shown earlier in this response. Therefore, the image selection process, including the selection disambiguation process can be executed both as a computerized version or as an "in the human mind" version. It follows, that the computerized image selection and selection disambiguation process can be executed in the human mind and, therefore, it constitutes and abstract idea (see the 2019 PEG).

Applicant submits "It is not reasonable to interpret claim 1 as referring to a person holding up cards and another person verbally choosing a card. A person holding up cards is not disclosed in any embodiment in the application." Examiner has carefully considered, but doesn't find Applicant's arguments persuasive. Based on the 2019 PEG, the process of the base claim(s) is compared to a potential mental process, a process that could be executed in the human mind. Therefore, this interpretation is not only reasonable, but also required.

Applicant submits ““The claims do more than simply saying "Apply It" without telling how to achieve the desired result. See, for example, Claim 14 Features 6 and 7 taking action based on a time difference and a predetermined threshold.”” Examiner has carefully considered, but doesn’t find Applicant’s arguments persuasive. No such rejection argument has been used in the instant Office Action eligibility rejection.

Applicant submits ““The claims do more than simply saying "Apply It" without telling how to achieve the desired result. See, for example, Claim 14 Features 6 and 7 taking action based on a time difference and a predetermined threshold.”” Examiner has carefully considered, but doesn’t find Applicant’s arguments persuasive. The eligibility analysis on the instant Office Action concludes at Step 2A Prong Two, among other conclusions:

This abstract idea is not integrated into a practical application. In particular, stripped of those claim elements that are directed to an abstract idea, the remaining positively recited elements of the independent claims are directed to obtaining the first information, providing the first information, obtaining the second information, providing the second information. These claim elements amount to no more than insignificant extra-solution activity (MPEP 2106.05(g)).

Applicant submits “The 'Field of Use' Negative Bullet.” Examiner has carefully considered, but doesn’t find Applicant’s arguments persuasive. The eligibility analysis in the instant Office Action makes no such argument.

Applicant submits “The present application raises the fact issues of the problem and solution. See the Review of Application above. Applicant has argued the claims are patent eligible at Step 2B based on facts.” Examiner has carefully considered, but doesn’t find Applicant’s arguments persuasive. First, “The courts consider the determination of whether a claim is eligible (which involves identifying whether an exception such as an abstract idea is being claimed) to be a question of law (*Roslin*). Accordingly, courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings.” (see July 2015 IEG Update: Subject Matter Eligibility – IV. Requirements of a Prima Facie Case).

Examiner points out that since, the *Berkheimer* decision was issued, which requires only “well-known, routine and conventional” determinations to be made based on facts. The eligibility analysis in the instant Office Action makes no such determinations.

Second, PTAB decisions, with very few exceptions, are not precedential, primarily because the PTAB standards are different from the examination standards. The cases quoted by Applicant, i.e. *In re Dominguez*, *In re Gillin*, are not among the precedential cases.

It becomes self-evident that there are no meaningful limitations in the claims that transform the judicial exception into a patent eligible application such that the claims amount to significantly more than the judicial exception itself. Therefore, the rejection under 35 U.S.C. § 101 is maintained.

With respect to Applicant's Remarks as to the claims being rejected under 35 USC § 103.

The rejection is withdrawn, as a result of the amendments.

Examiner has reviewed and considered all of Applicant's remarks. The rejection is maintained, necessitated by the new *35 USC § 112* rejection and by the fact that the rejection of the claims under *35 USC § 101* has not been overcome.

Conclusion

Applicants' amendments necessitated the new ground(s) of rejection presented in this Office action. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this office action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this office action.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Radu Andrei whose telephone number is 313.446.4948. The examiner can normally be reached on Monday – Friday 8:30am – 5pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ilana Spar can be reached at (571)270-7537. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

As detailed in MPEP 502.03, communications via Internet e-mail are at the discretion of the applicant. Without a written authorization by applicant in place, the USPTO will not respond via Internet e-mail to any Internet correspondence which contains information subject to the confidentiality requirement as set forth in 35 U.S.C. 122. A paper copy of such correspondence will be placed in the appropriate patent application. The following is a sample authorization form which may be used by applicant:

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REMARKS

Upon entry of the foregoing amendment, claims 9, 11-14, and 16-19 are pending.

Claims 9, 14, and 19 are independent. Claims 9, 14, and 19 are amended. No new claims are added. No claims are cancelled. Applicant respectfully requests entry of the amendment after final rejection.

Exemplary support for amendment is provided at *Spec.* ¶¶ [0010], [0023] and FIG. 6 items S403, S404, and S405.

A Final Office Action was issued on December 12, 2019.

Below “*Dec.*” refers to the declaration under 37 CFR § 1.132 filed on December 2, 2019.

“*Spec.*” refers to the application as originally filed.

Before addressing the rejections, Applicant provides a review of the Specification.

Review of the Application

As disclosed in the specification, an information processing device is configured to automatically display images one after another at predetermined intervals. A problem occurs when a user intends to click on a pre-switching image of a display, but instead clicks on a post-switching image. *Spec.* ¶ [0004], *Dec.* ¶ [14].

Technical Problem However, depending on the timing of switching among the advertisement images and the timing when a user clicks an image, *the user may be taken to an unintended advertisement page through screen transition.* *Spec.* ¶ [0004] (including heading from specification, emphasis added).

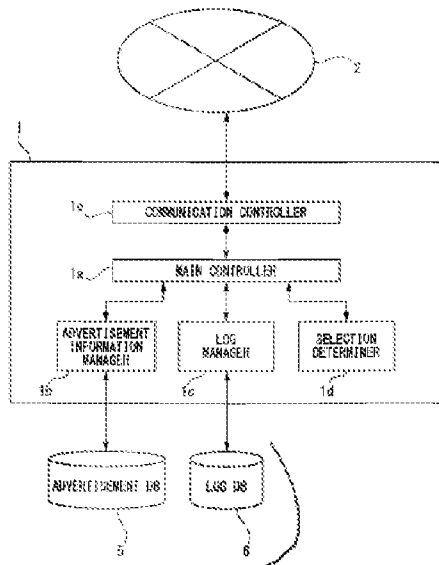
Solution to Problem ... *When switching between images displayed in a partial area on a web page has been performed, the information manager keeps information about a pre-switching image even after the switching. The timing information retriever retrieves the timing of the switching and the timing of a selection operation by a user on the area. When the timing information retriever retrieves the timing of the selection operation within a predetermined time length after the switching, the selection determiner makes a determination as to which of the pre-switching image and a post-switching image the selection operation is intended for.*

Spec. ¶ [0004] (including heading from specification, emphasis added).

As mentioned above, an automatic switching of the images may take place at a timing when a user performs a click operation. *Dec.* ¶¶ [14], [18]. When the user clicks a second image and the click operation by the user is performed just after the automatic switching, it is determined that the click represents the user's intention that the user desires to acquire information associated with a first image. *Dec.* ¶¶ [45]-[46], *Spec.* FIG. 5 S105 Y branch. Then, the information associated with the first image (i.e. not the second image) is provided. *Dec.* ¶¶ [27], [47], *Spec.* FIG. 6 item S404.

User selections are stored in a history in a database. “FIG. 3 is a diagram showing logs stored in a log DB[.]” *Spec.* ¶ [0013].

Fig. 2



Spec. FIG. 2 Log DB 6 (annotated).

Fig. 3

LOG TYPE	USER TERMINAL INFORMATION	ADVERTISEMENT ID	TIME INFORMATION
⋮	⋮	⋮	⋮

Spec. FIG. 3 (annotated).

The system records information requests. An incorrectly-processed request causes wrong information to be stored in the data base.

An example log stored in the *log DB 6* is now described with reference to FIG. 3. The log is provided with the entries “log type”, “*user terminal information*”, “advertisement ID”, and “time information”.

The log type is available in two options: “banner request” and “advertisement request”. The “banner request” is set for the above banner advertisement information request log and “advertisement request” is set for the above selected advertisement information request log.

The user terminal information is information *identifying a user terminal 4*. Examples of the user terminal information include an Internet Protocol (IP) address and a Media Access Control (MAC) address.

The advertisement ID is information uniquely *identifying one of the various advertisements* stored in the advertisement DB 5.

The time information can be used to estimate the time at which an operation or a process to be logged was performed. The time information of a log whose log type is “banner request” is, for example, *the date and time at which the advertisement delivery system 1 receives the banner advertisement information request.* The time information of a log whose log type is “advertisement request” is, for example, the date and time at which the advertisement delivery system 1 receives the selected advertisement information request.

Spec. ¶ [0022] (emphasis added).

Using embodiments of the application, wrong information is prevented from being stored in the database. “This prevents the time-wasting screen transition to an advertisement page for

an item that the user does not intend to purchase and also prevents the unintended item from being recorded in a viewing history.” *Spec.* ¶ [0051]. This problem and solution is corroborated by *Dec.* ¶ [16] (“A PHOSITA would understand, based on the specification, that due to the occasional selection operation by a user just after a switching time, *previous practice* without the benefit of the solution described below (paragraphs [21]-[28]) included lost time for the user, lost revenue for, in the example, advertisers, and *corrupted information in databases with respect to user history.*”)(emphasis added).

There is a nexus to the claims.

The present application provides a solution in which even when a user selects a second image, a computer performs an estimate that the user has intended to select not the second image but an earlier, first, image. *Spec.* ¶ [0004], *Dec.* ¶¶ [33], [41]-[47]. The determination of intention is based on the relationship between starting display times of the first and second images and a time of user selection. This solution improves the efficiency of user image selection and viewing. The displayed images, in some embodiments are associated with web addresses (URLs). *Dec.* ¶¶ [11], [12], [15].

The problem occurs because the user wanted first information of the first URL, but instead gets second information of the second URL; the desired first information is not the same as the mistaken second information. *Spec.* ¶ [0004], *Dec.* ¶ [18] (“The second URL associated with the second image will be used to fetch second information, which the user *did not wish to see*[.]”)(emphasis added).

The problem occurs at the display, and is thus at a man-machine interface. *Dec.* ¶ [15].

Because of the problem, there is lost time for a user, possible lost revenue, and *corrupted information in databases.* *Dec.* ¶ [16]. Due to the technical problem of the display and a fraction of a second, wrong information may occur. *Dec.* ¶ [19].

To solve this problem of determining user intent, the disclosure states that user intent associated with a user click can be determined based on a time difference with respect to the click and a switching time of a displayed image in a web page. *See, e.g., Spec.* at ¶¶ [0004], [0019], [0053]. Based on using a time difference to avoid a wrong association of user intent with a timing of a user click on an undesired displayed second image due to an unfortunate image switching time, proper information can be provided to a user and also a history can avoid

corruption. *See, e.g., Spec.* at ¶¶ [0021] (time difference information), [0022] (time difference log in database 6), [0023] (“This determination process *determines which banner advertisement the banner advertisement selection operation by a user is intended for.*”)(emphasis added), [0005] (“keeps information about a pre-switching image even after the switching”), [0009] (the solution “*prevents the unintended item from being recorded in a viewing history.*”)(emphasis added).

FIG. 6 items S403 and S404 illustrates making the decision about which image to display by determining a user’s intention based on a difference of a user selection time T1 and an image switching time T2 being less than a threshold value T0. Note T0 (predetermined value), T1 (time of user selection, for example, a click), and T2 (time when the display changes to the second image) of S403).

Rejections

Claims 9, 11-14, and 16-19 are rejected under 35 U.S.C. § 112(a) as allegedly failing to comply with the written description requirement.

The § 112(a) rejection is with respect to the claim 9 feature “third time occurred in less time after the second time than required to form an intention to select the second image” (hereinafter “Time and Intention Feature”). Office Action at page 7.

Applicant maintains that the Time and Intention Feature complies with the written description requirement of § 112(a). Applicant refers to arguments to that effect given in the Interview Agenda of the interview of March 19, 2020.

Based on the interviews of March 19, 2020 and April 10, 2020, it is Applicant’s understanding that clarification of the Time and Intention Feature will lead to withdrawal of the § 112(a) rejection.

Therefore, without acquiescing to the propriety of the § 112(a) rejection, Applicant has amended solely for further clarity.

Claim 9 recites (emphasis added):

selection determining code configured to cause at least one of said at least one processor to determine:

i) the selection operation is an operation to select the first image when a difference between the third time and the second time is less than a predetermined value, *wherein the first image is a pre-switching image, the second image is a post-switching image, and the selection determining code is further configured to,*

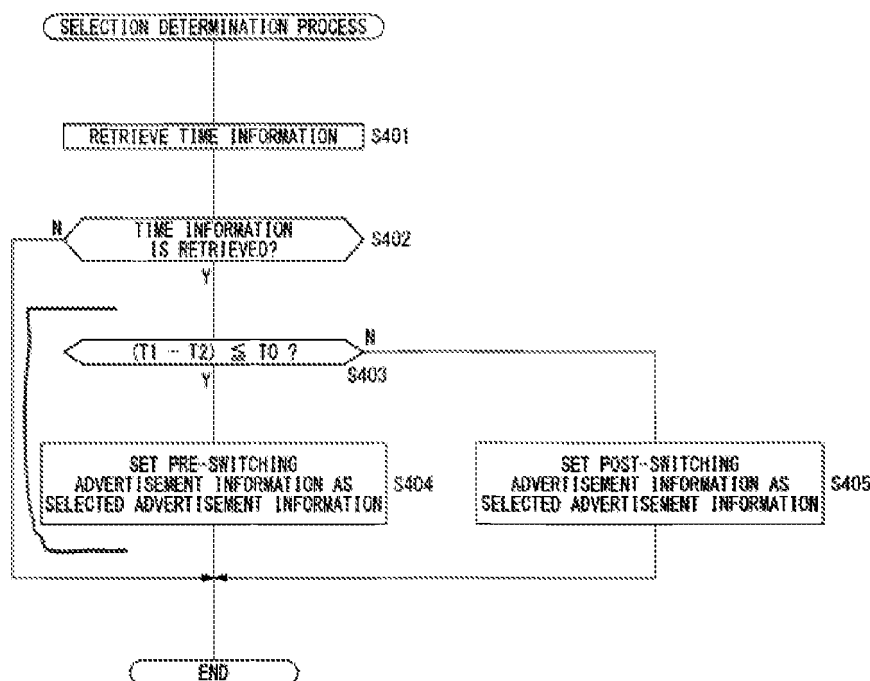
based on the predetermined value, detect whether the selection operation by the user is intended for the pre-switching image or the post-switching image, and
ii) the selection operation is an operation to select the second image when a difference between the third time and the second time is greater than or equal to the predetermined value,

Exemplary support for the amendment is provided at *Spec.* ¶¶ [0010], [0023] and FIG. 6 items S403, S404, and S405.

The selection determiner 1d of the advertisement delivery system 1 shown in FIG. 2 performs the above determination process requested from the main controller 1a. Specifically, the selection determiner 1d performs a process for *determining whether the time difference between the timing information of the banner advertisement switching process on the user terminal 4 (banner advertisement information request log) and the timing information of the banner advertisement selection operation by a user (selected advertisement information request log) is less than or equal to a predetermined time length*, and notifies the determination result to the main controller 1a. This determination process *determines which banner advertisement the banner advertisement selection operation by a user is intended for*. The main controller 1a receives the notification and performs a predetermined process (selection handling process). Some examples of the determination process are described below.

The communication controller 1e performs a process for sending information, received over the communication network 2, to the main controller 1a and a process for sending various types of advertisement information, passed from the main controller 1a, to the user terminal 4. *Spec.* ¶ [0023] (emphasis added)(this application paragraph includes more than one paragraph).

... When switching between images displayed in a partial area on a web page has been performed, information about a *pre-switching image* is kept even after the switching. The timing of the switching and the timing of a selection operation by a user on the area are retrieved. When the timing of the selection operation is retrieved within a predetermined time length after the switching, a determination is made as to which of the *pre-switching image and a post-switching image the selection operation is intended for*. Then, a selection handling process based on information about the pre-switching image or the post-switching image is performed based on the determination. *Spec.* ¶ [0010] (emphasis added)(a portion).



Spec. FIG. 6 (annotated)(see times T0, T1 and T2 at S403). FIG. 6 of the specification illustrates making a decision about a display image based on a difference of a user selection time T1 and an image switching time T2 being less than a threshold value T0.

Thus, to advance prosecution, Applicant has amended claim 9 by clarifying the language. Claim 9 recites (emphasis added):

i) the selection operation is an operation to select the first image when a difference between the third time and the second time is less than a predetermined value, *wherein the first image is a pre-switching image, the second image is a post-switching image, and the selection determining code is further configured to, based on the predetermined value, detect whether the selection operation by the user is intended for the pre-switching image or the post-switching image.*

The recitation of claim 9 is supported by *Spec.* ¶¶ [0010], [0023] and FIG. 6 items S403, S404, and S405. as shown above. Claims 14 and 19 use the same language emphasized above and comply with § 112(a) for the same reason. Applicant respectfully requests that the Examiner reconsider and withdraw the § 112(a) rejection.

Claims 9, 11-14, 16-19 are rejected under 35 U.S.C. § 101 as allegedly not directed to patent eligible subject matter. Applicant respectfully traverses.

From the interview of March 19, 2020, Applicant has the understanding that the Examiner will consider an argument that claim 9 is not directed to an abstract idea based on an argument at Prong 2 that claim 9 represents an improvement to a technology area. The remarks below are made with a goal of completeness.

§ 101 Prong 2 Arguments

Summary Argument

The application describes user information stored in databases. *Spec.* FIG. 2 and ¶ [0022]. The application suggests that previous methods allowed wrong information to be stored in a user viewing history. The application describes that embodiments of the application prevent storing the wrong information in user viewing histories. There is a nexus to the claims. Therefore, the claims are eligible at Prong 2.

For example, as mentioned above, using embodiments of the application, wrong information is prevented from being stored in the database. “This prevents the time-wasting screen transition to an advertisement page for an item that the user does not intend to purchase and also ***prevents the unintended item from being recorded in a viewing history.***” *Spec.* ¶ [0051]. This problem and solution is corroborated by *Dec.* ¶ [16] (“A PHOSITA would understand, based on the specification, that due to the occasional selection operation by a user just after a switching time, ***previous practice*** without the benefit of the solution described below (paragraphs [21]-[28]) included lost time for the user, lost revenue for, in the example, advertisers, and ***corrupted information in databases with respect to user history.***”)(emphasis added).

The prevention of identifying the unintended item as the item to be obtained (and store) has is a nexus to the claims, as shown for example, by claim 9:

i) the selection operation is an operation to select the first image when a difference between the third time and the second time is less than a predetermined value, *wherein the first image is a pre-switching image, the second image is a post-switching image, and the selection determining code is further configured to, based on the predetermined value, detect whether the selection operation by the user is intended for the pre-switching image or the post-switching image.*

Claims 14 and 19 are patent eligible at Prong 2 for the same reason.

Applicant respectfully requests that the Examiner reconsider and withdraw the § 101 rejection of claims 9, 14, and 19.

Further 101 Arguments

The application has a particular machine aspect, consider the evidence of Dec. ¶ [20] and MPEP § 2106.05(b).

PEG requires determining a BRI reading of the claims before making a decision regarding § 101. A reasonable claim interpretation, Applicant submits, must consider the machine aspect described in the application and which has a nexus to the claims. MPEP § 2131. The claims cannot be practiced, under BRI, in the human mind (not even as a matter of judgment or observation).

Rather than a matter of human judgment or observation, the application addresses a technical problem of a man-machine interface. “A PHOSITA would understand that the problem occurs at a man-machine interface. The user has decided to take an action, and the machine has decided to take an action. When these actions coincidentally overlap in a certain way, the machine will understand the user selection operation as directed to a second URL associated with a second image.” Dec. ¶ [15].

“A PHOSITA would view this problem as something that cannot be solved in the human mind, because the delay of the human mind and human physical coordination are a cause of the problem.” Dec. ¶ [20].

The specification discloses a display with a display area. The specification describes a particular problem of an asynchronous transition image in the display area. The claims are linked to a particular machine, a display. *Spec.* Abstract, ¶¶ [0025], [0027].

The application has a particular machine aspect, including asynchronous human and machine events.

The Office Action discusses a sales person example in which fabrics are held up for selection. Office Action at pages 10-11. Applicant respectfully submits that the problem addressed by the application must be considered.

A man-machine interface problem in which *asynchronous human and machine events* occur near each other in time is not a process of the human mind and is not a matter of judgment

or observation associated by PEG with the mental processes grouping. The asynchronous image transition problem addressed at the man machine interface is not analogous to the sales person example since there is no resulting problem of obtaining and presenting unintended information with the associated loss of time, confusion, and corruption of history data.

As described above, there is a computer benefit of avoiding corrupting memory. MPEP § 2106.05(a) is applicable.

Applicant respectfully submits that the application provides a solution and there is a nexus in the claims to the action/solution. The sales person of the Office Action does not have an analogy to the action solution of the claim.

Claim 14 recites in part (emphasis added)(claim 9 is similar):

*A) when the selection by the user corresponds to the first image:
obtaining the first information associated with the first image,
and
providing the first information via the display area; and
B) when the selection by the user corresponds to the second
image:
obtaining the second information associated with the second
image, and
providing the second information via the display area.*

This is an action step, this is a claim 14 feature corresponding to opening the rubber mold in *Diamond v. Diehr 450 US 175 (1981)*: “A) when the selection by the user corresponds to the first image: obtaining the first information associated with the first image.” There is no such step in the sales person example, and so there is no problem solved of *obtaining*, subsequent to a selection, and presenting the wrong information.

This is the claim step that delivers, for example, *avoiding corrupting a history memory of a computer with wrong information.*

“This prevents the time-wasting screen transition to an advertisement page for an item that the user does not intend to purchase and also *prevents the unintended item from being recorded in a viewing history.*” *Spec.* ¶ [0051] (emphasis added).

Because claim 14 does not fit into the “mental processes” grouping of PEG, Applicant respectfully requests that the Board reverse the § 101 rejection of claim 14.

“The claim features are meaningful and work together to obtain the improvement of saving time, avoiding frustration, and avoiding corruption of associations in memory.” *Dec.* ¶ [55].

Applicant respectfully requests that the Examiner reconsider and withdraw the § 101 rejection of claims 9, 14, and 19.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: **April 13, 2020**

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-8. (Cancelled).

9. (Currently Amended): An information providing device for determining a selection operation with respect to a display which automatically displays one image after another in a partial area of a display area at a plurality of prearranged intervals, wherein the plurality of prearranged intervals includes a first interval, and wherein the first interval automatically begins at a first time and automatically ends at a second time, the information providing device comprising:

at least one memory configured to store computer program code; and

at least one processor configured to read said computer program code and operate according to said computer program code, said computer program code including:

display code configured to cause at least one of said at least one processor to automatically display a first image in the partial area of the display area beginning at a first time, and automatically display, instead of the first image, a second image in the partial area of the display area beginning at a second time after the first time, wherein the first image is associated with first information and the second image is associated with second information, wherein the second information is different from the first information,

receive code configured to cause at least one of said at least one processor to receive an indication of the selection operation, by a user, in the partial area of the display area at a third time after the second time,

selection determining code configured to cause at least one of said at least one processor to determine:

i) the selection operation is an operation to select the first image when a difference between the third time and the second time is less than a predetermined value,

wherein the first image is a pre-switching image, the second image is a post-switching image, and the selection determining code is further configured to, based on the predetermined value, detect whether the selection operation by the user is intended for the pre-switching image or the post-switching image, wherein the predetermined value is defined to detect that the third time occurred in less time after the second time than required to form an intention to select the second image, and

ii) the selection operation is an operation to select the second image when a difference between the third time and the second time is greater than or equal to the predetermined value, and

information processing code configured to cause at least one of said at least one processor

to:

A) when the selection by the user corresponds to the first image:

obtain the first information associated with the first image, and
provide the first information via the display area, and

B) when the selection by the user corresponds to the second image:

obtain the second information associated with the second image, and
provide the second information via the display area.

10. (Cancelled):

11. (Previously Presented): The information providing device of claim 9, wherein:
the display code is further configured to cause the information providing device to determine the selection operation by displaying a confirmation screen to the user; and
the receive code is configured to cause the information providing device to receive a second selection operation by the user.

12. (Previously Presented): The information providing device of claim 9, wherein the display code is configured to cause the information providing device to determine the second time as the sum of the first time and a display time length, wherein the display time length is a maximum time length allocated to a display of one banner advertisement.

13. (Previously Presented): The information providing device of claim 9, further comprising address obtaining code configured to cause at least one of said at least one processor to obtain the first information, wherein the first information includes a Uniform Resource Locator (URL) of a web page associated with the first image.

14. (Currently Amended): A method for determining a selection operation with respect to a display which automatically displays one image after another in a partial area of a display area at a plurality of prearranged intervals, wherein the plurality of prearranged intervals includes a first interval, and wherein the first interval automatically begins at a first time and automatically ends at a second time, the method to be performed by at least one processor, the method comprising:

automatically displaying a first image in the partial area of the display area beginning at a first time;

automatically displaying, instead of the first image, a second image in the partial area of the display area beginning at a second time after the first time, wherein the first image is associated with first information and the second image is associated with second information, wherein the second information is different from the first information;

receiving an indication of the selection operation, by a user, in the partial area of the display area at a third time after the second time;

determining the selection operation is an operation to:

i) select the first image when a difference between the third time and the second time is less than a predetermined value, wherein the first image is a pre-switching image, the second image is a post-switching image, and the selection determining code is further configured to, based on the predetermined value, detect whether the selection operation by the user is intended for the pre-switching image or the post-switching image, wherein the predetermined value is defined to detect that the third time occurred in less time after the second time than required to form an intention to select the second image, and

ii) select the second image when a difference between the third time and the second time is greater than or equal to the predetermined value;

A) when the selection by the user corresponds to the first image:

obtaining the first information associated with the first image, and
providing the first information via the display area; and

B) when the selection by the user corresponds to the second image:

obtaining the second information associated with the second image, and
providing the second information via the display area.

15. (Cancelled):

16. (Previously Presented): The method of claim 14, further comprising:
confirming the intention of the user by displaying a confirmation screen to the user; and
receiving a second selection operation by the user.

17. (Previously Presented): The method of claim 14, further comprising determining
the second time as the sum of the first time and a display time length, wherein the display time
length is a maximum time length allocated to a display of the first image.

18. (Previously Presented): The method of claim 14, wherein the first information
includes a universal record locator (URL) address associated with the first image.

19. (Currently Amended): A non-transitory computer readable medium storing
program code for determining a selection operation with respect to a display which automatically
displays one image after another in a partial area of a display area at a plurality of prearranged
intervals, wherein the plurality of prearranged intervals includes a first interval, and wherein the
first interval automatically begins at a first time and automatically ends at a second time, the
program code to be performed by at least one processor, wherein the program code comprises:

display code for causing the at least one processor to automatically display a first image
in the partial area of the display area beginning at a first time, and automatically display, instead
of the first image, a second image in the partial area of the display area beginning at a second
time after the first time, wherein the first image is associated with first information and the

second image is associated with second information, wherein the second information is different from the first information;

receiving code for causing the at least one processor to receive an indication of the selection operation, by a user, in the partial area of the display area at a third time after the second time;

selection determining code configured to cause at least one of said at least one processor to determine:

i) the selection operation is an operation to select the first image when a difference between the third time and the second time is less than a predetermined value, wherein the first image is a pre-switching image, the second image is a post-switching image, and the selection determining code is further configured to, based on the predetermined value, detect whether the selection operation by the user is intended for the pre-switching image or the post-switching image, wherein the predetermined value is defined to detect that the third time occurred in less time after the second time than required to form an intention to select the second image, and

ii) the selection operation is an operation to select the second image when a difference between the third time and the second time is greater than or equal to the predetermined value; and

information processing code configured to cause at least one of said at least one processor to:

A) when the selection by the user corresponds to the first image:

obtain the first information associated with the first image, and
provide the first information via the display area, and

B) when the selection by the user corresponds to the second image:

obtain the second information associated with the second image, and
provide the second information via the display area.

20. (Cancelled):