Citation: BlackBerry Limited (Re), 2023 CACP5
Commissioner's Decision #1638
Décision du Commissaire nº 1638
Date: 2023-01-31

TOPIC:	O00	Obviousness
	C00	Adequacy or Deficiency of Description
	B00	Claims - Ambiguity or Indefiniteness
SUJET:	O00	Évidence
	C00	Caractère adéquat ou inadéquat de la description
	B00	Revendications - Caractère ambigu ou indéfini

Application No. : 2,823,800

Demande nº 2 823 800

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,823,800, having been rejected under subsection 199(1) of the *Patent Rules* (SOR/2019–251), has consequently been reviewed in accordance with paragraph 86(7)(c) of the *Patent Rules*. The recommendation of the Board and the decision of the Commissioner are to refuse the application.

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INTRODUCTION

[1] This recommendation concerns the review of rejected Canadian patent application number 2,823,800 which is entitled “CONTACTS AFFINITY USED TO PRIORITIZE DISPLAY OF CONTENT ITEM PREVIEWS IN ONLINE STORE” and is owned by BlackBerry Limited (the Applicant).

[2] A review of the rejected application has been conducted by the Patent Appeal Board (the Board) pursuant to paragraph 86(7)(c) of the *Patent Rules* (SOR/2019-251) (*Patent Rules*). As explained in more detail below, our recommendation to the Commissioner of Patents is to refuse the application.

BACKGROUND

The application

[3] The application was filed on August 12, 2013, and was laid open to public inspection on February 13, 2014.

[4] The application relates generally to a method and system for displaying reviews of items in an online store, wherein the reviews are prioritized based on the social affinity between the user and the reviewers.

[5] The application has 30 claims on file (claims on file), which were received at the Patent Office on October 15, 2019.

Prosecution history

[6] On May 19, 2020, a Final Action (FA) was issued pursuant to subsection 86(5) of the *Patent Rules*. The FA identified the following defects in the application:

- claims 1-30 on file would have been obvious and do not comply with section 28.3 of the *Patent Act*, and
- the description does not correctly and fully describe the invention and does not comply with subsection 27(3) of the *Patent Act*.

[7] On September 16, 2020, a response to the FA (RFA) was filed by the Applicant. In the RFA, the Applicant submitted arguments in favour of the allowance of the application. The Applicant also submitted a proposed set of claims 1-18 (proposed claim set-1) to remedy the obviousness defect identified in the FA with respect to the claims on file.

[8] As the Examiner considered the application not to comply with the *Patent Act*, pursuant to paragraph 86(7)(c) of the *Patent Rules*, the application was forwarded to the Board for review on April 27, 2021, along with an explanation outlined in a Summary of Reasons (SOR). The SOR indicated that the claims on file and the description were still considered defective for the reasons set out in the FA. The SOR also indicated that proposed claim set-1 would not overcome the obviousness defect.

[9] On May 4, 2021, the Board forwarded to the Applicant a copy of the SOR along with a letter acknowledging the rejection and requested an indication of the Applicant's continued interest in having the application reviewed.

[10] In a letter dated July 29, 2021, the Applicant indicated continued interest in having the Board review the application.

[11] A Panel of the Board (the Panel), comprised of the undersigned members, was formed to review the instant application under paragraph 86(7)(c) of the *Patent Rules*.

[12] In a preliminary review letter (PR letter) dated September 22, 2022, the Panel presented its preliminary analysis with respect to the claims on file and proposed claim set-1. The Panel was of the preliminary view that:

- claims 1-30 on file would have been obvious and do not comply with section 28.3 of the *Patent Act*,
- the description correctly and fully describes the invention and complies with subsection 27(3) of the *Patent Act*,
- claims 1, 2, 9, 23 and 25 on file are indefinite and do not comply with subsection 27(4) of the *Patent Act*,

- the description on file does not comply with subsection 57(1) of the *Patent Rules*,
- claims 1-18 in proposed claim set-1 would have been obvious and would not comply with section 28.3 of the *Patent Act*, and claims 9-16 in proposed claim set-1 would be indefinite and would not comply with subsection 27(4) of the *Patent Act*. Therefore, proposed claim set-1 could not be considered a necessary amendment under subsection 86(11) of the *Patent Rules*.

[13] The PR letter also offered the Applicant the opportunities to make written submissions and to attend an oral hearing.

[14] In a letter dated October 6, 2022, the Applicant declined the opportunity for a hearing.

[15] In a response to the PR letter (RPR) dated October 24, 2022, the Applicant submitted arguments in favour of patentability of the application. The Applicant also submitted a proposed set of claims 1-18 (proposed claim set-2) as well as a proposed description amendment.

ISSUES

[16] This review addresses the following issues:

- whether claims 1-30 on file would have been obvious and non-compliant with section 28.3 of the *Patent Act*,
- whether the description correctly and fully describes the invention and complies with subsection 27(3) of the *Patent Act*,
- whether claims 1, 2, 9, 23 and 25 on file are indefinite and non-compliant with subsection 27(4) of the *Patent Act*, and
- whether the description on file complies with subsection 57(1) of the *Patent Rules*.

[17] In this review, the Panel first considers the issues that pertain to the claims and the description on file. The Panel then considers whether the latest proposed amendments submitted in the RPR constitute amendments necessary for

compliance with the *Patent Act* and *Patent Rules* under subsection 86(11) of the *Patent Rules*.

LEGAL PRINCIPLES AND OFFICE PRACTICE

Purposive construction

[18] In accordance with *Free World Trust v Électro Santé Inc*, 2000 SCC 66, and *Whirlpool Corp v Camco Inc*, 2000 SCC 67, purposive construction is performed from the point of view of the person skilled in the art in light of the relevant common general knowledge (CGK), considering the whole of the disclosure including the specification and drawings. In addition to interpreting the meaning of the terms of a claim, purposive construction distinguishes the essential elements of the claim from the non-essential elements. Whether or not an element is essential depends on the intent expressed in or inferred from the claim, and on whether it would have been obvious to the skilled person that a variant has a material effect upon the way the invention works.

Obviousness

[19] Section 28.3 of the *Patent Act* requires claimed subject matter to not be obvious:

> The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to
>
> (a) information disclosed before the one-year period immediately preceding the filing date or, if the claim date is before that period, before the claim date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and
>
> (b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

[20] In *Apotex Inc v Sanofi–Synthelabo Canada Inc*, 2008 SCC 61 at para 67, the Supreme Court of Canada stated that it is useful in an obviousness inquiry to follow the following four-step approach:

> (1)(a) Identify the notional "person skilled in the art";
>
> (1)(b) Identify the relevant common general knowledge of that person;
>
> (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
>
> (3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;
>
> (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

Sufficiency of disclosure

[21] Subsection 27(3) of the *Patent Ac*t requires, among other things, a specification of a patent to correctly and fully describe an invention, and to enable its practice:

> The specification of an invention must
>
> (a) correctly and fully describe the invention and its operation or use as contemplated by the inventor;
>
> (b) set out clearly the various steps in a process, or the method of constructing, making, compounding or using a machine, manufacture or composition of matter, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it pertains, or with which it is most closely connected, to make, construct, compound or use it;
>
> …

[22] A determination of whether the specification complies with paragraphs 27(3)(a) and 27(3)(b) of the *Patent Act* requires that three questions be answered: What

is the invention? How does it work? Having only the specification, can the person of skill in the art produce the invention using only the instructions contained in the disclosure? See *Teva Canada Ltd v Novartis AG*, 2013 FC 141 citing *Teva Canada Ltd v Pfizer Canada Inc*, 2012 SCC 60 and *Consolboard v MacMillan Bloedel (Sask) Ltd*, [1981] 1 SCR 504 at 526. Although the CGK can be relied upon, the person of skill in the art should not be called upon to display inventive ingenuity or undertake undue experimentation.

Indefiniteness

[23] Subsection 27(4) of the *Patent Act* requires claims to distinctly and explicitly define subject matter:

> The specification must end with a claim or claims defining distinctly and in explicit terms the subject-matter of the invention for which an exclusive privilege or property is claimed.

[24] In *Minerals Separation North American Corp v Noranda Mines Ltd*, [1947] Ex CR 306 at 352, 12 CPR 99, the Court emphasized both the obligation of an applicant to make clear in the claims the ambit of the monopoly sought and the requirement that the terms used in the claims be clear and precise:

> By his claims the inventor puts fences around the fields of his monopoly and warns the public against trespassing on his property. His fences must be clearly placed in order to give the necessary warning and he must not fence in any property that is not his own. The terms of a claim must be free from avoidable ambiguity or obscurity and must not be flexible; they must be clear and precise so that the public will be able to know not only where it must not trespass but also where it may safely go.

Incorporation by reference

[25] Subsection 57(1) of the *Patent Rules* prohibits the incorporation of documents by reference:

> The description must not incorporate any document by reference.

ANALYSIS

Purposive construction

[26] The purposive construction of a claim is carried out in light of the whole of the specification and takes into account what the person skilled in the art in view of their common general knowledge would understand from the whole of the specification to be the nature of the invention.

[27] The PR letter reviewed the following prior art documents cited in the FA:

- D1: US 2012/0158551 A1 21 June 2012 Gonsalves et al.
- D2: US 7,707,122 B2 27 April 2010 Hull et al.
- D3: US 2008/0040475 A1 14 February 2008 Bosworth et al.
- D4: US 2009/0210391 A1 20 August 2009 Hall et al.

[28] D1 discloses a retail interface which displays a product collage and social media content including reviews of items, where reviews by the user's contacts are prioritized and displayed ahead of other reviews.

[29] D2 discloses a system and method for information filtering by using measures of affinity between subscribers of an online portal system such as their relationships, online interactions, level and type of communication and activities.

[30] D3 discloses a system and method for measuring user affinity in a social network environment using the user's relationship or direct interaction with other users, as well as the user's interactions with the content such as stores, headlines or other users' profiles. The measured user affinity is then used to assign an order to various data, which are presented to the user.

[31] D4 discloses an automated information search and retrieval system which extracts information about the user such as their emails and calendar events with their contacts in order to determine the contacts' relevance or importance.

The person skilled in the art

[32] In the PR letter at pages 6-7, we adopted the characterization of the skilled

person used in the FA:

> The skilled person which may be a team of people, is skilled in the fields of computer, software engineering and online advertising/public relations technologies.

[33] The Applicant did not dispute the above characterization in the RFA or RPR. We therefore adopt the same characterization in this review.

The relevant common general knowledge

[34] In the PR letter at pages 7-8, we provided our preliminary characterization of the relevant CGK:

> The FA on page 2 identified the relevant CGK. The Applicant did not dispute the characterization in the FA. However, in view of the characterization of the person skilled in the art, the instant application [Background section, page 1], the RFA, particularly on pages 6-7, and the cited prior art, in particular D2 [Background of the invention section; Abstract; col. 2 line 57 – col. 3 line 23; col. 5 lines 39-51; col. 7 line 31 – col. 8 line 5; col. 9 line 55 – col. 10 line 17], D3 [Background of the invention section; Abstract; par. [0013]; [0020], [0037]-[0038]; [0042], [0046]] and D4 [whole document especially par. [0069]-[0076]], we preliminarily identify the relevant CGK as the following:
>
> - Networked computer systems where various components such as processor, memory, database, input and output components may be housed locally in one device or remotely in separate devices connected via the internet or various types of wireless or wired networks;
>
> - Exchange of data between networked devices having databases containing various data such as contacts and content information including reviews and reviewer information;
>
> - Database manipulation and management techniques used for adding, deleting, sorting and modifying data in a database, as well

as querying, joining and cross-referencing databases containing data such as contacts and reviewer information;

- The use of unique identifiers for networked devices such as Media Access Control (MAC) address, IP (Internet Protocol) address, International Mobile Equipment Identity (IMEI) number, Unique Device Identifier (UDID) for Apple devices, Android ID for Android devices, etc.;

- Social media and communication platforms such as Google and Android, providing services such as emails, calendars, contact databases and instant messaging while storing user data locally and/or remotely on the cloud;

- Social media, search engine and online advertising companies monitoring user behaviour such as browsing behaviour, interactions with contents such as stories and headlines, or interactions with other users via for example emails or instant messaging to determine relevant content and ads to be presented to the user;

- The use of an individual's social network to determine relevant connections for a variety of reasons such as networking, service referrals, finding activity partners, etc.;

- Determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars; and

- Various marketing strategies used by e-commerce companies to encourage users to spend more time on their websites and purchase more products or services, including displaying of relevant information such as reviews or questions/answers, and the use of various layouts to prioritize display of relevant information to the users.

[35] In the RPR at page 6, the Applicant submitted that:

> The Applicant respectfully disagrees with the identification of the relevant CGK proposed by the Panel. In particular, the Applicant disagrees that the following features are part of the CGK:
>
> - *The use of an individual's social network to determine relevant connections for a variety of reasons such as networking, service referrals, finding activity partners, etc.;*
> - *Determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars.*
>
> The above-noted features, in particular the feature of "*determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars*" is not part of the CGK but is instead specialized knowledge that the person of ordinary skill in the [art] would not have. While methods of "*determining a measure of social affinity*" are known, it is submitted that this feature has not yet become part of the CGK.

[36] In the RPR at page 8, the Applicant further submitted the following:

> It is submitted that the feature of "*determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars*" is not "*widely recognised*" but is instead part the body of information which is simply "*publicly available*", and is therefore not part of the CGK.

[37] In the RPR, the Applicant did not specifically address prior art documents D2-D4 which were referenced in the PR letter to support the identification of the CGK features.

[38] With respect to the first feature, namely the use of an individual's social network to determine relevant connections for a variety of reasons such as networking, service referrals and finding activity partners, D2, a patent filed in 2004 and published in 2010, in its background of the invention section discloses:

> Social networking is a concept that an individual's personal network of friends, family colleagues, coworkers, and the subsequent connections

> within those networks, can be utilized to find more relevant connections for dating, job networking, service referrals, activity partners, and the like.
>
> …
>
> The above personal relationships, and others, can be utilized to find and develop relevant connections for a variety of objectives. Finding and developing relevant connections can be accelerated with online services. Such online social networking can be used to mine personal and/or interest relationships in a way that is often more difficult and/or time-consuming to do offline.
>
> Thus, there has been a flurry of companies launching services that help people to build and mine their personal networks. However, these efforts have been predominately directed towards dating and job opportunities.

[39] We also note that D2's corresponding patent application, US 2005/0171955 A1, was published in 2005 and provides a similar disclosure.

[40] Additionally, D3, a patent application filed in 2006 and published in 2008, in its background of the invention section discloses:

> Conventionally, a user of a social networking website connects with other users by providing information about the user to the social network website for access by other users. For example, a user may post contact information, background information, current job position, hobbies, and so forth. Other users may review this information by browsing through profiles or entering keyword(s) into an internal search engine that searches the social networking site for profiles containing the keyword(s).
>
> Recently, social networking websites have developed systems for better connecting users to the content most relevant to each particular user. For example, users may be grouped together in one or more groupings based on any common factor listed in their profile, such as geographical location, employer, job type, music preferences, and so forth.

[41] In light of the above, it is our view that the person skilled in the art at the claim date of August 13, 2012 would have been familiar with the use of an individual's social network to determine relevant connections for a variety of reasons such as

networking, service referrals, finding activity partners and so on.

[42] With respect to the second feature, namely determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars, we consider D2 which is generally related to a system and method for information filtering by using measures of affinity between subscribers of an online portal system such as their relationships, online interactions, level and type of communication and activities. In its background of the invention section, D2 discloses:

> Social networking is a concept that an individual's personal network of friends, family colleagues, coworkers, and the subsequent connections within those networks, can be utilized to find more relevant connections for dating, job networking, service referrals, activity partners, and the like.
>
> A social network typically comprises a person's set of direct and indirect personal relationships.
>
> …
>
> The above personal relationships, and others, can be utilized to find and develop relevant connections for a variety of objectives. Finding and developing relevant connections can be accelerated with online services. Such online social networking can be used to mine personal and/or interest relationships in a way that is often more difficult and/or time-consuming to do offline.

[43] D2 further discloses at column 2 line 55 to column 3 line 18:

> Relationship measurements may be obtained to assess an extent of known online interactions between subscribers of the portal (online social network) system. Any of a variety of online interactions may be tracked, including message communications between subscribers, participation in a buddy list, an instant messaging buddy list, a mailing list, an online discussion group, an activity, a chat group, category, and so forth. Online interactions may also be determined based on names within an address book of a subscriber, names within an address book of another subscriber within the portal system, and the like. In addition to behavior information, such social network information can comprise subscriber-defined information,

> subscriber behavior information, portal assessment information, and the like. Subscriber-defined information can include contact lists, preferences, survey responses, and other information provided by a subscriber. Subscriber behavior information can also include frequency of visiting Web sites, types of online purchases, types of online communication used most often, duration of participating in online activities, and other information that can be detected about a subscriber's online actions. Portal assessment information may include compliments about a subscriber, complaints about a subscriber, reputation assessments from peer subscribers, comparison between subscriber-defined information, spam detection about the subscriber, and other information determined by others about a subscriber. Many other types of information can be stored and/or determined by an online portal (social network) system regarding a subscriber.
>
> Such interactions and behaviors may be employed to determine a level of trust (or affinity) between subscribers of the portal system.

[44] D2 also discloses at column 6 lines 40-46:

> The mass memory also stores program code and data. One or more applications 250 are loaded into mass memory and run on operating system 220. Examples of application programs include email services, schedulers, calendars, web services, transcoders, database programs, word processing programs, spreadsheet programs, and so forth.

[45] Furthermore, D3, which is generally related to measuring user affinity in a social network environment, discloses at paragraph 13:

> A system and method for measuring user affinity in a social network environment is provided. The user affinity may be measured by utilizing relationships the user has with other users. The user affinity may also be measured by monitoring the user's interaction with content, such as stories, headlines, or other user's profiles, and/or the user's interaction with other users, directly, such as emails to other users.

[46] D3 further discloses at paragraph 20:

> A monitoring module 206 tracks one or more user activities on the social networking website. For example, the monitoring module 206 can track

> user interaction with one or more items of media, such as news stories, other users' profiles, email to other users, chat rooms provided via the social network provider 106, and so forth. Any type of user activity can be tracked or monitored via the monitoring module 206. The information, people, groups, stories, and so forth, with which the user interacts, may be represented by one or more objects, according to exemplary embodiments.

[47] D3 also discloses at paragraph 46:

> …an affinity for one or more objects associated with the social network environment is determined based on the one or more activities and the relationship. The one or more objects may include other users, subject matter, categories, and so forth. The affinity may be based on an affinity weight and rating assigned to the one or more user activities and the relationship(s) associated with the one or more user activities. The one or more user activities may comprise emailing one or more other users, viewing profiles for one or more other users, viewing content posted by or for one or more other users, viewing content posted for the user, himself, and so forth. Any type of activities may be monitored and utilized to determine the affinity.

[48] Finally, we consider D4, a patent application filed in 2008, published in 2009 and also referenced in the instant application, which is generally related to an automated information search and retrieval system which extracts information about the user such as their emails and calendar events with their contacts, in order to determine the contacts' relevance or importance. It discloses at paragraphs 70-71:

> …the initial computed importance for a person is a ratio comprising the number of email messages sent by a user to the person divided by the number of email messages received by the user from the person, the ratio then multiplied by the total number of email messages extracted from the user's email accounts to which the person is related….Many other computed importance metrics are possible, including importance metrics that take into account more, or all, of the person-related and company-related data stored in the above-described database.
>
> …

> For example, for people 2202, values that can be factored into a computation of relevance or importance include the number of email messages sent to the person, the number of email messages received from the person, the average time that the user took to respond to email messages from the person, the length of the email messages received from the person, the number of calendar events which the person is included in, as an attendee, whether or not the person is in the user's contact list, the user's ranking of the person, the number of email messages from the person actually opened by the user, the number of email messages received from the user with attachments, the number of times items related to email messages from the person were accessed, the cumulative average importance computed for the person over some preceding period of time, the number of times the person's name appears in an event title, the number of times the person's email address appears in various email-message fields, including to, from, cc, and bcc, the number of times these items related to the person that were read, the number of times these items related to the person were read, the number of times these items related to the person were deemed off topic by the user, and the number of times these items related to the person were saved by the user. This is, of course, an incomplete list of potential considerations and factors for computing the relevance or importance for a person.

[49] It further discloses a social graph for a user at paragraph 76:

> The social graph is computed for all other people associated with the user with respect to a particular person associated with the user. An icon representing the particular person associated with the user 2602 occurs at the center, or hub, of the graph. Accounts for all other people associated with the user are positioned relative to the particular person, to indicate the social-network distance of each of the other people with respect to the particular person. For example, given that T. A. McCann is the user for which the social graph is provided, and given that Stephen Hall is the subject of the social graph, then the distance between the icon representing April O'Rourke 2604 and the icon representing Stephen Hall 2602 is reflective of, for example, the number of emails or calendar events that include T. A. McCann, Stephen Hall, and April O'Rourke. Many other ways of computing social-network distances can be used. In certain cases,

> multiple icons, representing multiple persons important or relevant to a user, can appear at the hub or center of the social graph, so the social graph represents a social-network distance between all other people and the two people at the center of the social-network graph. There are many other possible ways of computing social-network affinities or distances, and many other possible ways for representing and displaying social-network graphs.

[50] In light of the above disclosures in D2-D4, it is our view that the person skilled in the art at the claim date would have been familiar with determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars.

[51] For completeness, we note that the instant description does not provide implementation details regarding how to use emails and calendar events to determine a measure of the social affinity between users. In our view, this also suggests that such implementation details, particularly with respect to determining a measure of social affinity between users using their behavioural information, would have been part of the CGK of the skilled person at the claim date. This feature of the CGK is particularly significant in the obviousness and sufficiency of disclosure assessments, and is discussed in further detail in the corresponding sections below.

The essential elements

[52] The instant application contains 30 claims on file, including independent claims 1, 13 and 23, which are directed to a method of prioritizing reviews of items in an online store. While there are variations in these independent claims, we take claim 1 on file as representative of the invention for the purpose of this review and address any differences as needed.

[53] Claim 1 on file reads:

> A method to display prioritized reviews on a display of a mobile electronic device, the method comprising:

sending from a mobile electronic device a request over a network electronic device to an online storefront for content item information relating to a content item;

receiving at the mobile electronic device over the network from the online storefront electronic device the requested content item information, wherein the received content item information includes reviews of the content item and indications of identities of a plurality of reviewers who provided the reviews;

retrieving contacts information from a contacts database maintained within a memory of the mobile electronic device, wherein the contacts information indicates identities of contacts identified in the contacts database;

sending over the network from the mobile electronic device to the online storefront the retrieved contacts information;

receiving at the mobile electronic device over the network from the online storefront indications of matches between a plurality of contacts identified in the contacts information and the plurality of reviewers indicated in the received content item information;

determining, at the mobile electronic device, a priority of the reviews of the content item, the priority based at least partially upon a respective social affinity between a matched respective reviewer in the plurality of reviewers and a user of the mobile electronic device; and

displaying, on the mobile electronic device, the reviews of the content item based on the determined priority.

[54] Independent claim 13 on file, instead of determining a priority of the reviews, recites “determining, by the online storefront, a priority of at least some of the matched reviewers as a function of social affinity”. Independent claim 23 recites similar limitations as claim 1 on file.

[55] Dependent claims 2-12, 14-22 and 24-30 on file recite further details regarding the claimed method of prioritizing reviews and the criteria used to determine social affinity between users.

[56] In relation to the essential elements, the PR letter at page 9 stated:

> In our preliminary view, the person skilled in the art would understand that there is no use of language in any of the claims on file indicating that the elements in each claim are optional, a list of alternatives, a preferred embodiment or non-essential.
>
> Therefore, it is our preliminary view that all the elements of the claims on file are presumed to be essential.

[57] As the Applicant did not dispute the above identification of the essential elements in the RPR, we adopt the above position for this review.

Meaning of terms

[58] Purposive construction is also used to construe the meaning of claim terms as understood by the person skilled in the art.

[59] In our view, it is important to construe the terms “first data structure”, “second data structure”, “third data structure” as well as “adding labels to reviews” as understood by the skilled person in view of the specification. These terms are recited in proposed claim set-2 and are significant in the corresponding obviousness analysis.

[60] The instant application provides details regarding the above terms at page 13 line 7 to page 14 line 4:

> Referring to Figure 7A, there is shown an illustrative first reviews information structure 702 that associates reviews of a selected content item prior to performance of the matching identification act of block 610. The example first reviews information structure 702 orders the reviews so that review R_1 is the first review that would be presented to the user of device 402, and Review R_8 is the last review presented. Reviews shown in Figure 7A that contain the additional label C_1 to C_4 are reviews that have been created by persons identified in the obtained contact information. It will be appreciated that the first reviews information structure 602 accords no special priority to reviews by persons who are contacts of the user associated with the device 402.

> In block 610, the first data structure 702 represented in Figure 7A is transformed to a second data structure 704 represented in Figure 7B in which reviews by reviewers who are contacts of the user of the device 402 are prioritized ahead of other reviews. In Figure 7B, reviews are prioritized such that reviews that have an additional label Ci to would be presented to the user of device 402 before the other reviews would be presented. In other words, associations in non-transitory storage among reviews of the selected content item are changed to prioritize presentation of reviews by persons who are contacts of the user associated with the device 402 before other reviews of the content item.
>
> In block 612, the second data structure 704 represented in Figure 7B is transformed to a third data structure 706 represented in Figure 7C in which reviews by reviewers who are contacts of the user of the device 402 are prioritized ahead of other reviews and also are prioritized according to the reviewer's affinity to the user associated with the device 402. As explained above, a variety of different criteria can be used for measuring affinity such as number, frequency or recentness of emails and/or calendar events, for example. In this example, the block 612 determines that the user associated with the device 402 has the greatest affinity to the reviewer who created the review labeled with C_2 followed by reviews bearing labels C_3, C_4 and C_1 respectively. Thus, the third reviews information structure 706 organizes the reviews such that the review containing label C_2 is presented to the user first followed in order by reviews bearing labels C_3, C_4 and C_1.

[61] Based on the above and Figures 7A-7C, the data structures and labeling of the reviews appear to be directed to the general concept of organizing the dataset containing the reviews, as opposed to any specific technical implementation involving creation and transformation of specific data structures. It is therefore our view that the person skilled in the art would construe the first data structure broadly as a dataset containing all the reviews, the second data structure broadly as reviews ordered such that contacts' reviews are prioritized over others, and the third data structure broadly as reviews reordered such that contacts' reviews are themselves prioritized as well. Similarly, in our view, the person skilled in the art would construe the concept of adding labels to the reviews broadly as any type of identifier such that the reviews could be individually identified and the

review dataset could be organized/ordered.

Obviousness

(1) Identify the notional "person skilled in the art" and their relevant CGK

[62] The person skilled in the art and their relevant CGK have been identified above under "Purposive construction".

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

[63] In the PR letter at page 9, we considered the combination of the essential elements of the claims to represent their inventive concepts. As the Applicant did not dispute this characterization in the RPR, we adopt the same characterization in this review.

(3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed

[64] In our view, as in the PR letter and the FA, D1 is the closest prior art. It discloses creating and displaying a product collage and social media content on a retail webpage where reviews for items from the user's contacts are prioritized over other reviews.

[65] With respect to the representative claim 1, in our view, D1 discloses the following:

a method to display prioritized reviews on a display of a mobile electronic device [D1: par. [0019]-[0020]; #110, #112, Fig 1], the method comprising:

sending from a mobile electronic device a request over a network to an online storefront for content item information relating to a content item [D1: par. [0028], [0030]; Fig 4];

receiving at the mobile electronic device over the network from the online storefront the requested content item information [D1: par. [0030]], wherein the received content item information includes reviews of the content item and indications of identities of a plurality of reviewers who provided the reviews [D1: par. [0031]-[0033]; Fig 1];

retrieving contacts information from a contacts database, wherein the contacts information indicates identities of contacts identified in the contacts database [D1: par. [0027], [0032]];

sending over the network from the contacts database to the online storefront the retrieved contacts information [D1: par. [0032]-[0033]];

receiving at the mobile electronic device over the network from the online storefront indications of matches between a plurality of contacts identified in the contacts information and the plurality of reviewers indicated in the received content item information [D1: par. [0031]-[0033]];

determining a priority of the reviews of the content item, the priority based at least partially upon a respective social affinity between a matched respective reviewer in the plurality of reviewers and a user of the mobile electronic device [D1: par. [0022]-[0023], [0031]-[0033]]; and

displaying, on the mobile electronic device, the reviews of the content item based on the determined priority [D1: par. [0022]-[0023], [0031]-[0033]].

[66] Although D1 discloses a contacts database and determining the priority of the reviews, in our view, it does not explicitly disclose that the contacts database is maintained within a memory of the mobile electronic device, and that determining the priority of the reviews is performed at the mobile device.

[67] Independent claim 13 on file is directed to a method to generate prioritized reviews of a content item. It recites similar features as claim 1 on file with the following differences: (1) the contacts information includes information indicating a social affinity between the user of the mobile electronic device and a plurality of the identified contacts, (2) determining priority is performed by the online storefront, (3) determining a priority is performed on at least some of the matched

reviewers.

[68] With respect to difference (1), D1 discloses that the social network systems "receive, organize, store and serve social data about user", and that the retail system "organizes and indexes users by their social relationships (e.g., user identified friends, users with similar shopping or browsing habits, users in similar geographic locations, etc)." [D1: par. [0027]]. With respect to difference (2), D1 discloses that the retail system determines the priority of reviews and displays reviews from the user's contacts in a separate section with a different label than reviews from all other customers [D1: par. [0022]-[0023], [0031]-[0033]; Fig 1]. Difference (3) will be discussed in step (4) below.

[69] Independent claim 23 on file is directed to a method to display prioritized reviews and recites similar features as claim 1 on file.

[70] Dependent claim 2 on file further specifies that reviews by reviewers identified in the contacts database are displayed ahead of reviews by other reviewers. D1, however, also discloses this feature [D1: par. [0022]-[0023], [0031]-[0033]; Fig 1].

[71] Dependent claim 9 on file does not appear to add any limitations to the subject matter of claim 1 on file.

[72] Dependent claims 3-8, 10-12, 14-22 and 24-30 on file recite further details regarding the claimed method of prioritizing reviews and the criteria used to determine social affinity between users, which do not appear to be explicitly disclosed by D1.

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

[73] The FA at pages 4-5 indicated that the claims on file are directed to subject matter that would have been obvious at the claim date to the person skilled in the art.

[74] In the RFA and RPR, the Applicant submitted proposed claim set-1 and proposed claim set-2 respectively, and argued in favour of their patentability.

[75] In our view, the differences between the disclosure in D1 and the inventive concept of claims on file would not constitute an inventive step.

[76] With respect to claims 1, 2 and 23 on file, as stated in the PR letter at page 12:

> D1 discloses a computer system including various components such as a retail system, client browser and social network systems, which are connected via the Internet, or a wireless or wired network [D1: par. [0028], [0042]-[0043]]; Fig 2, 4]. For example, the retail system generates webpages, the client browser displays webpages, and social network systems store user data. The retail system includes a web server to create webpages, documents and files, a product details data repository to store details about products, and a collage builder to generate collages using product images [D1: par. [0024]-[0025]; Fig 2]. D1 discloses that these system components are connected via a network which may be a wireless network [D1: par. [0028]].
>
> In our preliminary view, it would have been an obvious design alternative for a person skilled in the art to house the above system components in different locations or to allocate the task of prioritizing reviews to a different system component. Furthermore, the specification does not provide any details or reasons that maintaining the contacts database at the mobile device or determining the priority of reviews at the mobile device would provide any distinct advantages. In fact, the description on page 4 discloses that the “contacts database may be stored within local memory of the electronic device or it may be stored in a remote storage that is accessible over a network.” Similarly, regarding the priority server used to prioritize reviews based on social affinity information, the description on page 11 discloses that “although the priority server 415 is shown to operate as a component of the online storefront 404, persons skilled in the art will appreciate that alternatively, the user device 402 can be configured to implement the functionality of the priority server.”
>
> It is therefore our preliminary view that the features of maintaining the contacts database within the memory of the mobile electronic device and determining the priority of the reviews at the mobile electronic device would have been obvious design alternatives to a person skilled in the art in view of D1 and the CGK, and would not constitute an inventive step.

[77] In the RPR, the Applicant did not directly comment on the obviousness analysis regarding the claims on file, instead submitted arguments on the basis of the proposed claims. Therefore, in this review, we adopt the above position with respect to claims 1, 2 and 23 on file.

[78] With respect to claim 13 on file, in addition to the above difference, D1 does not explicitly disclose determining a priority of at least some of the matched reviewers. However, D1 discloses placing more importance on the opinions of the user's contacts compared to those of strangers by displaying the contacts' reviews ahead of the stranger's reviews. It also discloses that "the retail system 202 organizes and indexes users by their social relationships (e.g., user identified friends, users with similar shopping or browsing habits, users in similar geographic locations, etc). In some examples, the retail system 202 matches user data with the contacts 218a, 218b supplied by the social network systems" [par. [0027]]. In other words, D1 discloses that not all contacts have the same social relationship with the user.

[79] The person skilled in the art having to implement the system in D1 would have been faced with the question of how to order and display the reviews from the user's contacts. Given the disclosure in D1, namely that the user's contacts' opinions are more important than stranger's opinions and that users are indexed and organized based on their social relationship, as well as various criteria for measuring social affinity between users being CGK, in our view, instead of randomly ordering the contacts' reviews, the person skilled in the art would have been motivated to extend the teachings of D1 such that the contacts' reviews would also be prioritized based on various measures of social affinity between the user and the contacts. Therefore, in our view, the subject matter of claim 13 on file would have been obvious to the person skilled in the art in view of D1 and the relevant CGK.

[80] With respect to dependent claims 3-8, 10-12, 14-22 and 24-30 on file, as stated in the PR letter at page 13:

> Dependent claims 3-6, 10-12, 14-17, 20-22 and 26-30 on file recite various criteria used to determine the social affinity of users such as frequency, recentness, number and type of interactions including emails, instant messages and calendar events between users and their contacts. In our

> preliminary view, the subject matter of these claims are directed to implementation details and design alternatives which would have been obvious to the skilled person in view of D1 and the relevant CGK.
>
> Dependent claims 7 and 18 on file recite that contacts information indicates identities of contacts including their unique device identifiers. In our preliminary view, it would have been obvious to a person skilled in the art to include the unique device identifiers of the contacts in the contacts database in view of D1 and the CGK.
>
> Dependent claims 8 and 19 recites sending over the network by the online storefront to the electronic device an indication of contacts of the user of the device who have the content item. D1 discloses displaying reviews by the user's contacts. It is our preliminary view that it would have been obvious to the person skilled in the art to modify the system of D1 such that the retail system would provide an indication of user's contacts who have purchased the content item, and display the number of said contacts.
>
> Dependent claims 24 and 25 on file recite that determining matches is performed by the electronic device or the online storefront. It is our preliminary view that these features are directed to design alternatives which would have been obvious to the person skilled in the art in view of D1 and the CGK.

[81] In the RPR, the Applicant did not directly comment on the obviousness analysis regarding the claims on file, instead submitted arguments on the basis of the proposed claims. Therefore, in this review, we adopt the above position with respect to claims 3-8, 10-12, 14-22 and 24-30 on file.

[82] Accordingly, we conclude that claims 1-30 on file would have been obvious to the skilled person in view of the prior art and the relevant CGK, and do not comply with section 28.3 of the *Patent Act*.

Sufficiency of disclosure

[83] The FA at pages 5-6 indicated that the description does not comply with subsection 27(3) of the *Patent Act*. The PR letter at pages 13-15 provided our preliminary assessment as set out below:

The FA on pages 5-6 indicated that the description does not comply with subsection 27(3) of the *Patent Act* as it does not correctly and fully describe the invention and does not set out clearly the various steps and their necessary sequences in the process in such full, clear, concise and exact terms as to enable a person skilled in the art to practice the invention. The FA on pages 5-6 indicated that:

- The independent claims on file disclose an idea for…exchanging contact information between a user's computer and a merchant's website and then displaying prioritized reviews. In reading the originally filed description, there does not appear to be any specific instruction on how to programs a user's/client computer or a merchant's website to exchange contact information, nor exactly how to prioritize reviews.

- Figures 4 and 6 supposedly enable the review prioritization functionality. Figure 4 displays the sequence of messages between different logical entities. No full clear, concise and exact disclosure could be located in the originally filed description on how to construct any of this functionality in any of the devices/logical entities (user device, contacts database, web server, priority server, content DB).

- Figures 6 and 7 supposedly enable the prioritization criteria functionality. Figure 7 and page 13 disclose that reviewers who are contacts are prioritized ahead of non-contacts, however does not explain how they are prioritized among themselves (more than one contact is a reviewer). Figure 7C and page 13 discloses that they are also prioritized using "affinity", and lists a number of possible criteria to determine "affinity", however does not explain how to actually utilize any of these criteria's/variables to actually calculate "affinity". Figure 8 shows a box stating "match information from shopping users contacts to reviewers accounts to prioritize reviews based upon affinity to Shopper." This figure is simply restating a desired result ("prioritize reviews based upon affinity to shopper"), while

providing no enabling disclosure on how to achieve this desired result.

- Figure 8 supposedly provides enablement for matching contact information with reviews. Figure 8 discloses "match information from shopping user's contacts to reviewer's accounts". Restating the desired result is not considered enabling disclosure.

- In summary, the applicant proposes the abstract idea that more events can have greater affinity, or one can weight certain events differently. This is extremely vague and does not instruct the skilled person how to actually determine affinity on the mobile device. How does one actually acquire this information in real time from the all the different software programs on the device which hold some of this information? What is one specific example of an actual algorithm for determining this affinity? The description cannot rely on references to other patents for enabling disclosure as contemplated by the applicant's response. This reads as just of wish list of functionality.

In the RFA, the Applicant submitted that:

> [a] person skilled in the art, with the benefit of the present disclosure would clearly be able to work the invention set out by the present claims including determining social affinities (e.g., based on frequencies, recentness, numbers, or types of interactions), determining a priority based at least partially upon a respective social affinity between a matched respective reviewer and a user, and displaying reviews of the content item based on the priority.

The Applicant further argued that:

> The Applicant reiterates that a person skilled in the art does not need to see explicit details on how to query a database, how to join two database tables, how to sort a list based on one field having a higher value than other fields. The aforementioned

> skills are basic skills which a person skilled in the art would possess and utilize to understand the description of a patent application.
>
> We preliminarily agree with the Applicant. As mentioned in the "Legal Principles and Patent Office Practice" section, the specification complies with subsection 27(3) of the *Patent Act* if, having only the specification, the person skilled in the art can produce the invention without displaying inventive ingenuity or undertaking undue experimentation. In our preliminary view, it was a well-known practice in the art at the claim date to exchange contacts information between various devices and to cross reference a database containing reviewer data with one containing user's contacts. Furthermore, as discussed in the "Purposive construction" section, the person skilled in the art at the claim date would have been familiar with how to determine social affinity between individuals based on various criteria such as frequency and type of their interactions or communications, and using various measures of social affinity to determine relevant information to be presented to users. It is therefore our preliminary view that the person skilled in the art, having only the specification and their CGK, would have been able to practice the claimed subject matter without the need for inventive ingenuity or undue experimentation.
>
> In light of the above, it is our preliminary view that the specification complies with subsection 27(3) of the *Patent Act* as it correctly and fully describes the subject matter of the claims on file and enables its practice.

[84] The Applicant did not dispute the above position in the RPR. Accordingly, we conclude that the description complies with subsection 27(3) of the *Patent Act* as it correctly and fully describes the subject matter of the claims on file and enables its practice.

[85] As previously discussed, the instant specification does not provide technical implementation details with respect to how a measure of social affinity between users is determined. Although the description as originally filed, at page 5 lines 7-11, incorporates prior art document D4 by reference, as explained in the "Incorporation by reference" section below, subsection 57(1) of the *Patent Rules* prohibits the incorporation of documents by reference. Therefore, D4 does not

form part of the disclosure in the instant application. However, as discussed above, our conclusion with respect to the sufficiency of disclosure defect identified in the FA is based on our view that the feature of determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars was part of the CGK of the skilled person at the claim date. In our view, if this feature were not part of the CGK, the skilled person would be unable to implement the claimed subject matter given the specification's lack of implementation details concerning the determination of social affinity between users.

Indefiniteness

[86] Subsection 27(4) of the *Patent Act* requires claims to distinctly and explicitly define the claimed subject matter.

[87] The PR letter at pages 15-17 indicated that claims 1, 2, 9, 23 and 25 on file are indefinite:

> In our preliminary view, the following indefiniteness defects are present in the claims on file.
>
> Claim 1 on file recites "over a network electronic device" (claim 1, line 3). It is not clear what is meant by a "network electronic device". Given the use of the term "network" in the rest of the claim, it appears that this term should read "over a network". Similarly, the term "the online storefront electronic device" (claim 1, lines 5-6) lacks antecedents and should possibly read "the online storefront".
>
> Claim 2 on file recites the term "the indication of the determined prioritization" (claim 2, line 2) which has no antecedent.
>
> Claim 9 on file recites "wherein determining priority of received reviews includes determining by the electronic device as a function of social affinity indicated in the contacts information database between the user of the device and contacts indicated by the received indications of matches as matching reviewers of the content item." This phrase causes ambiguity as it appears to be incomplete.

Claim 23 on file recites

> sending over the network by the online storefront to the mobile electronic device the requested content item information,
>
> …
>
> sending over the network from the mobile electronic device to the online storefront the retrieved contacts information;
>
> determining matches between one or more contacts identified in the sent contacts information and one or more reviewers indicated in the obtained content item information;
>
> sending over the network from the online storefront to the mobile electronic device indications of matches between one or more contacts identified in the sent contacts information and one or more reviewers indicated in the received content item information[.]

The terms “the obtained content item information” (claim 23, line 14) and “the received content item information” (claim 23, line 17) lack antecedents. Furthermore, given the expression “sending over the network from the mobile electronic device to the online storefront the retrieved contacts information”, it appears that the step of determining matches between contacts identified in the sent contacts information and reviewers indicated in the obtained content item information would have to be performed at the mobile electronic device. Therefore, it is unclear how indications of matches are sent from the online storefront to the mobile electronic device, not vice versa.

Claim 25, which depends on claim 23, recites “determining matches is performed by the online storefront”. Given the above, it appears that the language of claim 23 indicates that the step of determining matches is performed by the mobile electronic device.

Therefore, it is our preliminary view that claims 1, 2, 9, 23 and 25 on file are indefinite and do not comply with subsection 27(4) of the *Patent Act*.

[88] The Applicant did not dispute the above in the RPR, instead submitted

proposed claim set-2 to remedy these defects. We therefore conclude that claims 1, 2, 9, 23 and 25 on file are indefinite, and do not comply with subsection 27(4) of the *Patent Act*.

Incorporation by reference

[89] Subsection 57(1) of the *Patent Rules* prohibits the incorporation of documents by reference.

[90] The PR letter at page 17 stated:

> The description on file at page 5, lines 8-9 contains a statement that incorporates by reference another document. Therefore, the description on file does not comply with subsection 57(1) of the *Patent Rules*.

[91] The Applicant did not dispute the above in the RPR, instead submitted a proposed amendment to the description to remedy this defect. We therefore conclude that the description on file does not comply with subsection 57(1) of the *Patent Rules*.

Proposed amendments

[92] As stated above, in the RPR, the Applicant submitted proposed claim set-2 in order to remedy the obviousness and indefiniteness defects as well as a proposed amendment to the description to remedy the incorporation by reference defect.

[93] Proposed claim set-2 contains 18 claims, including independent claims 1 and 9. In our view, proposed claim 1 is representative of the independent claims. It reads:

> A method, by an online storefront, to generate prioritized reviews of a content item offered there through, the online storefront comprising a web server, a priority server, and a content database, and the online storefront accessible through a user interface (UI) display of a mobile electronic device, the method comprising:

receiving, by the web server, a request over a network from the mobile electronic device for content item information relating to a content item;

receiving, by the priority server, over the network from the mobile electronic device contacts information obtained from a contacts database, wherein the contacts information includes device identifier information identifying contacts of a user of the mobile electronic device and information indicating a social affinity between the user of the mobile electronic device and a plurality of the identified contacts;

obtaining, from the content database, the requested content item information including reviews of the content item and device unique indicators of identities of a plurality of reviewers who provided the reviews;

generating a first data structure containing the reviews;

determining matches between one or more contacts identified by the device identifier in the sent contacts information and one or more reviewers identified by the device unique indicators in the obtained content item information;

adding labels to the reviews corresponding to reviewers which matched the one or more contacts;

transforming the first data structure into a second data structure in which the labelled reviews have been moved ahead of the un-labelled reviews;

determining, by the priority server, a priority of at least some of the matched reviewers as a function of social affinity indicated in the contacts information between the user of the mobile electronic device and the matched reviewers of the content item;

transforming the second data structure into a third data structure in which the reviews corresponding to the reviewers having a higher priority are moved ahead of the rest of the labelled reviews;

sending, by the web server, over the network to the mobile electronic device the requested content item information, wherein the content information includes the third data structure.

[94] Proposed claim 9 is directed to the corresponding system and recites similar features as proposed claim 1. Proposed claims 17 and 18 are directed to the corresponding non-transitory machine readable medium and apparatus respectively. Proposed dependent claims recite similar features as the dependent claims on file.

[95] Since there is no use of language indicating that any one of the features in the proposed claims is optional, a preferred embodiment, one of a list of alternatives, or non-essential, all features presented in the proposed claims are considered to be essential to the proposed claims.

Obviousness

[96] In our view, the proposed claims would not overcome the obviousness defects identified in the FA and PR letter.

[97] We consider the combination of essential elements of the proposed claims to represent their inventive concepts. We consider proposed claim 1 as the representative claim and take the above identified essential elements of the proposed claims for the purpose of assessing their obviousness.

[98] In our view, D1 discloses:

a method, by an online storefront, to generate prioritized reviews of a content item offered there through [D1: par. [0019]-[0020]; #110, #112, Fig 1], the online storefront comprising a web server, a priority server, and a content database, and the online storefront accessible through a user interface (UI) display of a mobile electronic device [D1: par. [0028], [0038], [0042]-[0043]; Figs 2-4], the method comprising:

receiving, by the web server, a request over a network from the mobile electronic device for content item information relating to a content item [D1: par. [0028], [0030]: “The client browser 204 requests a series of product pages (302), for example, in response to input from a user interested in browsing multiple products for sale through a retail website”; Fig 4];

receiving, by the priority server, over the network the social contacts information obtained from a contacts database, wherein the contacts information includes identifier information identifying contacts of a user of the mobile electronic device and information indicating a social affinity between the user of the mobile electronic device and a plurality of the identified contacts [D1: par. [0032]: “The web server 210 collects the identification of the user (320) that is associated with the collage page request. The user identification is cross referenced with a list of users of the social network systems 206. The social network systems 206 collect the contacts…related to the user (322). For example, a list of the user’s contacts…is compiled and transmitted to the web server 210”; par. [0027]: “The social network systems 206a and 206b receive, organize, store and serve social data about users. The social network systems, in this example, include contacts 218a, 218b….the retail system 202 organizes and indexes users by their social relationships (e.g., user identified friends, users with similar shopping or browsing habits, users in similar geographic locations etc). In some examples, the retail system 202 matches user data with contacts 218a, 218b supplied by the social network systems 206a, 206b operated by different business entities”];

obtaining, from the content database, the requested content item information including reviews of the content item and indicators of identities of a plurality of reviewers who provided the reviews [D1: par. [0019]: “A social media ratings display 110 shows ratings and/or reviews of users that contacts of the viewer through the retail website, through an external social media website, or other system”; par. [0032]: “The user identification is cross referenced with a list of users of the social network systems 206. The social network systems 206 collect the contacts and images related to the user (322). For example, a list of the user’s contacts…is compiled and transmitted to the web server 210.”; par. [0033]: “…comments made by the user’s contacts are removed from a listing of all comments and added to a display that shows comments by the user’s contacts.”];

generating a first data structure containing the reviews [D1: as discussed in the “Meaning of terms” section, in our view the person skilled in the art would construe the first data structure broadly as a dataset containing all the reviews; the collage builder functionalities provided in D1, including prioritizing reviews,

necessarily involve organization and prioritization of datasets including the reviews; par. [0020]: “A ratings display 112 shows ratings and/or reviews from some or all users that have submitted ratings related to the content of the retail webpage 100”; par. [0031]: “The client browser 204 requests a collage page (314)…the collage page is a product profile page that includes a product display, a ratings input display, a social media ratings display, and a ratings display. The web server 210 generates a collage page template (316). The collage page template includes general information, such as information not associated with a particular user or a particular user’s social contacts, history or browsing habits.”];

determining matches between one or more contacts identified by the identifier in the sent contacts information and one or more reviewers identified by the indicators in the obtained content item information [D1: par. [0027]: “The social network systems 206a and 206b receive, organize, store, and serve social data about users. The social network systems, in this example, include contacts 218a, 218b and user images 220a, 220b.…the retail system 202 organizes and indexes users by their social relationships (e.g., user identified friends, users with similar shopping or browsing habits, users in similar geographic locations, etc). In some examples, the retail system 202 matches user data with the contacts 218a, 218b supplied by the social network systems 206a, 206b operated by different business entities.”; par. [0032]: “The web server 210 collects the identification of the user (320) that is associated with the collage page request. The user identification is cross referenced with a list of users of the social network systems 206.”];

adding labels to the reviews corresponding to reviewers which matched the one or more contacts [D1: as discussed in the “Meaning of terms” section, in our view the person skilled in the art would construe the concept of adding labels to the reviews broadly as any type of identifier such that the reviews could be individually identified and the review dataset could be organized/ordered; par. [0033]: “The web server 210 receives the information from the social network systems 206 and finalizes the collage template for serving (324). In some examples, comments made by the user's contacts are removed from a listing of all comments and added to a display that shows comments by the user's contacts”; #110, #112, Fig 1];

transforming the first data structure into a second data structure in which the labelled reviews have been moved ahead of the un-labelled reviews [D1: as discussed in the “Meaning of terms” section, in our view the person skilled in the art would construe the second data structure broadly as reviews ordered such that contacts’ reviews are prioritized over others; the collage builder functionalities provided in D1, including prioritizing reviews, necessarily involve organization and prioritization of datasets including the reviews; par. [0033]: “The web server 210 receives the information from the social network systems 206 and finalizes the collage template for serving (324). In some examples, comments made by the user's contacts are removed from a listing of all comments and added to a display that shows comments by the user's contacts”; par. [0023]: “a user reading down the column will be presented with display areas that go from more personal (their own opinions) to more universal (their contact’s opinions, then stranger’s opinions)”; #110, #112, Fig 1];

sending, by the web server, over the network to the mobile electronic device the requested content item information, wherein the content information includes the second data structure [D1: par. [0033]: “The web server 210 serves the collage webpage to the client browser 204 and the client browser displays the collage page (326)”].

[99] In our view, D1 does not explicitly disclose the following:

(1) receiving contacts information from the mobile electronic device;

(2) contacts and reviewers are identified using their device identifier; and

(3) determining, by the priority server, a priority of at least some of the matched reviewers as a function of social affinity indicated in the contacts information between the user of the mobile electronic device and the matched reviewers of the content item, transforming the second data structure into a third data structure in which the reviews corresponding to the reviewers having a higher priority are moved ahead of the rest of the labelled reviews.

[100] Regarding difference (1), D1 discloses that contacts information is stored on the social network systems [D1: “Contacts 218”, Fig 2]. D1 also discloses a network 208 which is “a system that passes data and/or communications between

systems” [D1: par. [0028]]. It further discloses that “the features described are implemented in digital electronic circuitry, or in computer hardware, firmware, software, or in combination of them” [D1: par. [0039]] and provides possible implementation details at paragraphs [0040] to [0044] . As previously discussed with respect to the claims on file, in our view, it would have been an obvious design alternative for a person skilled in the art to house the various system components in D1 in different locations or allocate the task of prioritizing reviews to different system components. The specification does not provide any details or reasons that maintaining the contacts database at the mobile device or determining the priority of reviews at the mobile device would provide any distinct advantages. In fact, the description at page 4 discloses that the “contacts database may be stored within local memory of the electronic device or it may be stored in a remote storage that is accessible over a network.” Similarly, regarding the priority server used to prioritize reviews based on social affinity information, the description on page 11 discloses that “although the priority server 415 is shown to operate as a component of the online storefront 404, persons skilled in the art will appreciate that alternatively, the user device 402 can be configured to implement the functionality of the priority server”. It is therefore our view that the feature of receiving contacts information from the mobile electronic device would have been an obvious design alternative to a person skilled in the art in view of D1 and the CGK, and would not constitute an inventive step.

[101] Regarding difference (2), D1 does not explicitly disclose how the users are identified in the system. However, in our view, the use of device identifiers such as Media Access Control (MAC) addresses, IP (Internet Protocol) addresses, International Mobile Equipment Identity (IMEI) numbers, Unique Device Identifiers (UDID) for Apple devices, Android ID for Android devices were part of the CGK of the person skilled in the art at the claim date. In our view, several identifiers would have been available to the person skilled in the art in order to identify the users in D1, including for example phone numbers associated with the user’s mobile device, email addresses or social media identifiers. We note that the instant specification does not disclose technical or implementation details with respect to the claimed unique device identifier. In our view, given the disclosure in D1 and the relevant CGK, it would have been an obvious design alternative to the skilled person to identify the users of the system using the

users' unique device identifiers.

[102] Regarding difference (3), D1 does not explicitly disclose prioritizing and displaying the user's contacts' reviews as a function of the social affinity between the user and their contacts. However, as previously discussed with respect to the claims on file, D1 is concerned with placing more importance on the opinions of the user's contacts compared to those of strangers and displays the contacts' reviews ahead of the stranger's reviews. It also discloses that "the retail system 202 organizes and indexes users by their social relationships (e.g., user identified friends, users with similar shopping or browsing habits, users in similar geographic locations, etc). In some examples, the retail system 202 matches user data with the contacts 218a, 218b supplied by the social network systems" [par. [0027]]. In other words, D1 discloses that not all contacts have the same level of social affinity with the user.

[103] Additionally, as mentioned in "The relevant common general knowledge" section, determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars was part of the common general knowledge of the skilled person at the claim date. In fact, the instant application does not disclose implementation details with respect to how a measure of social affinity between users is determined.

[104] The person skilled in the art having to implement the system in D1 would have been faced with the question of how to order and display the reviews from the user's contacts. Given the disclosure in D1, namely that the user's contacts' opinions are more important than stranger's opinions and that users are indexed and organized based on their social relationship, as well as various criteria for measuring social affinity between users being CGK, in our view, instead of randomly ordering the contacts' reviews, the person skilled in the art would have been motivated to extend the teachings of D1 such that the contacts' reviews would also be prioritized based on various measures of social affinity between the user and the contacts. Therefore, in our view, the skilled person would have arrived directly and without difficulty at the features in difference (3), namely that contacts' reviews are prioritized based on the social affinity between the user and the contacts, in view of D1 and the relevant CGK.

[105] In the RPR at page 8, the Applicant submitted that:

> It is submitted that the feature of "*determining a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars*" is not "widely recognised" but is instead part the body of information which is simply "publicly available", and is therefore not part of the CGK. Accordingly, the Applicant respectfully traverses the Panel's allegation that Proposed Claim 1 is obvious in view of D1 and CGK. Because the noted feature is not part of D1 or the CGK, it is submitted that there must be some explicit disclosure of this feature in another prior art reference and there must be some teaching, suggestion or motivation for the skilled person to look to combine and/or modify D1 with such a reference to establish obviousness, which has not been provided.

[106] As previously discussed, it is our view that the above feature was part of the CGK of the person skilled in the art at the claim date, and the person skilled in the art would have been motivated to incorporate these features into the system of D1 in order to arrive at the subject matter of proposed claim 1.

[107] In the RPR at page 11, the Applicant submitted that "D1 is silent regarding an online storefront comprising a priority server". We respectfully disagree. D1 discloses a retail webpage, displaying a product collage and social media content, as well as a web server and collage builder that obtain and prioritize content reviews. Therefore, it is our view that D1 discloses the claimed feature of a system component which prioritizes the reviews.

[108] In the RPR at pages 20-21, the Applicant submitted that:

> Even if determining "*a measure of social affinity between individuals using their behavioural information such as email, instant messaging and calendars*" forms part of the CGK, which the Applicant refutes, the Applicant submits that the POSITA would have no motivation to combine the teachings of D1 in to include a prioritization of their contacts' opinions. As shown in FIG. 1 (reproduced below), D1 seeks to encourage interest in the lower portions of the webpage by encouraging a user's attention to follow a path 116, 118.
>
> …

> Modifying the invention to include a prioritization of a user's contacts' review would not enhance interest in lower portions of the webpage, and accordingly, the Applicant submits that POSITA would have no motivation to do so.

[109] We respectfully disagree. In our view, D1 does not simply seek to encourage interest in the lower portions of the webpage by encouraging user's attention to follow a path 116, 118. D1 is directed to a retail webpage which ultimately seeks to facilitate the sale of products [D1: par. [0004]]. It discloses certain content and layouts in order "to encourage the user to explore more of the retail webpage 100, such as while considering the purchase of the product in the product display 102" [D1: par. [0017]-[0020]]. As previously discussed, D1 discloses comments/ratings from the user's contacts more prominently than those of strangers. It also discloses organizing and indexing users by their social relationships. As explained above, it is our view that the skilled person would have been motivated to extend the teaching of D1 and further prioritize the contacts' reviews based on the social relationship between the user and the contacts.

[110] Proposed independent claims 9, 17 and 18 recite similar limitations as proposed claim 1. It is therefore our view that these claims would have also been obvious in view of D1 and the relevant CGK.

[111] Proposed dependent claims 2-8 and 10-16 recite various criteria used to determine the social affinity of users such as frequency, recentness, number and type of interactions including emails, instant messages and calendar events between users and their contacts. As previously explained, in our view, the subject matter of these claims is directed to implementation details and design alternatives which would have been obvious to the skilled person in view of D1 and the relevant CGK.

[112] In light of the above, it is our view proposed claim set-2 containing the proposed claims 1-18 would have been obvious to a person skilled in the art in view of D1 and the relevant CGK, and would not comply with section 28.3 of the *Patent Act*.

Indefiniteness

[113] In our view, the proposed claims in proposed claim set-2 would overcome the indefiniteness defects with respect to the claims on file identified in the PR letter.

Incorporation by reference

[114] In our view, the proposed description amendment on page 5 would overcome the incorporation by reference defect identified in the PR letter.

Conclusion regarding the proposed amendments

[115] In light of the above, we conclude that, as proposed claim set-2 would not comply with section 28.3 the *Patent Act*, the proposed amendments are not considered necessary amendments in accordance with subsection 86(11) of the *Patent Rules*.

CONCLUSIONS

[116] The Panel is of the view that:

- claims 1-30 on file would have been obvious to a person skilled in the art and do not comply with section 28.3 of the *Patent Act*,
- the description correctly and fully describes the invention and complies with subsection 27(3) of the *Patent Act*,
- claims 1, 2, 9, 23 and 25 on file are indefinite and non-compliant with subsection 27(4) of the *Patent Act*,
- the description on file includes an incorporation by reference and does not comply with subsection 57(1) of the *Patent Rules*, and
- the latest proposed amendments would overcome the indefiniteness and incorporation by reference defects, however, claims 1-18 in proposed claim set-2 would have been obvious to a person skilled in the art and would not comply with section 28.3 of the *Patent Act*. Therefore, the proposed claims are not considered a necessary amendment under subsection 86(11) of the *Patent Rules*.

RECOMMENDATION OF THE BOARD

[117] In view of the above, we recommend that the application be refused on the grounds that:

- claims 1-30 on file would have been obvious to a person skilled in the art and do not comply with section 28.3 of the *Patent Act*,
- claims 1, 2, 9, 23 and 25 on file are indefinite and non-compliant with subsection 27(4) of the *Patent Act*, and
- the description on file does not comply with subsection 57(1) of the *Patent Rules*.

Mehdi Ghayour	Leigh Matheson	Jeffrey Butler
Member	Member	Member

DECISION OF THE COMMISSIONER

[118] I concur with the conclusions and recommendation of the Board that the application be refused on the grounds that:

- claims 1-30 on file would have been obvious to a person skilled in the art and do not comply with section 28.3 of the *Patent Act*,
- claims 1, 2, 9, 23 and 25 on file are indefinite and non-compliant with subsection 27(4) of the *Patent Act*, and
- the description on file does not comply with subsection 57(1) of the *Patent Rules*.

[119] Therefore, in accordance with section 40 of the *Patent Act*, I refuse to grant a patent for this application. Under section 41 of the *Patent Act*, the Applicant has six months within which to appeal my decision to the Federal Court of Canada.

Konstantinos Georgaras

Commissioner of Patents

Dated at Gatineau, Quebec

This 31st day of January, 2023