

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANK M. NARDOZZI, DINESH H. BHAT, TINA M. CLARK,
LAWRENCE C. HODGE, FREDERIC T. LEWIS, and HETAL R. SHAH

Appeal 2007-3429
Application 10/463,119
Technology Center 3600

Decided: February 29, 2008

Before TERRY J. OWENS, MURRIEL E. CRAWFORD, and
JENNIFER D. BAHR, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Frank M. Nardoizzi et al. (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-6.¹ We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

The Invention

Appellants' claimed invention is directed to a kiosk (fig. 1) for ordering photofinishing goods. The customer submits an order, from which the system generates a printed label 18 (figs. 4a, 4b). The customer then drops the film cartridge, disk, memory stick, or the like into an order envelope 20, places the label on the envelope, and drops the envelope through opening 36 into receiving container 37. As seen, for example, in Figure 5G, the kiosk has a display screen and menu for entering the order. It permits the customer to pick from a menu of products/services 94-96, for example. The order and the envelopes with the photo to be printed are sent to a central lab 38 (fig. 2). The central lab 38 has a computer 39 that monitors all the orders from a plurality of these kiosks in a variety of retail establishments (fig. 2). The central lab computer 39 monitors the sales at the kiosk (or a plurality of such kiosks) and programs the kiosk computer 14 to re-position product or service offerings to achieve the best positioning, based on analysis of monitored sales of the various offerings. The computer 39 analyzes the purchasing habits of particular customers, at particular retail establishments, and local and regional trends to determine the best

¹ Independent claims 1 and 4 were amended subsequent to the Final Rejection.

positioning.² If a customer has previously used one or more of the kiosks connected to computer 39, past purchase information of that customer can be retrieved and analyzed either locally at the kiosk or at computer 39 so as to customize the display screen for that particular customer.³ Claim 1 is illustrative of the invention and reads as follows:

1. An apparatus for displaying photofinishing goods or services that are being offered for sale, the apparatus comprising:

a display device [12] for displaying photofinishing goods or services that are being offered for sale, said display device comprising a screen [43] which is adapted to display a plurality of visual segments [90-98 in fig. 5G, for example];

a computer [14] for controlling what is displayed on said display device; and

a computer software program [at server 39] for programming said computer so that a plurality of said photofinishing goods or services will be displayed on said display device within said visual segments, said computer software program monitoring the sales of said photofinishing goods or services^[4] and re-arranging the position of said visual segments of said screen on said display device based on said monitoring.

² Specification 5-15.

³ Specification 12:26-30.

⁴ The other independent claim 4 differs from claim 1 only in that the computer program monitors sales of the goods and services at a plurality of retail locations.

The Evidence

The Examiner relies upon the following as evidence of unpatentability:

Ebrahim	US 5,859,639	Jan. 12, 1999
Ono	US 5,909,023	Jun. 1, 1999
Chui	US 6,657,702 B1	Dec. 2, 2003

The Rejections

Appellants seek review of the Examiner's rejections of claims 1-6 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the invention, and under 35 U.S.C. § 103(a) as unpatentable over the combination of Chui, Ono, and Ebrahim.

We refer in our opinion to the Examiner's Answer (mailed February 20, 2007), and to Appellants' Appeal Brief (filed November 21, 2005) and Reply Brief (filed April 20, 2007) for the respective positions of the Examiner and Appellants with respect to these rejections.

FINDINGS OF FACT

1. Appellants discuss visual segments on page 14 of their Specification, which describes the screen 43 of Figure 5G as having nine visual segments 90-98, any one of which can be changed independent of the other segments. A person of ordinary skill in the art reading this disclosure, with reference to Figure 5G, would readily appreciate that a "visual segment" of a display, as that terminology is used in the present application, is a window or display field for displaying information, such as information about photofinishing goods or services offered for sale.

2. Chui discloses a photographic print ordering system, which may include a kiosk (col. 13, l. 25) including a special-purpose computer system (col. 13, ll. 25-26). Chui's system permits the customer to order photographic products, which can include photographic prints, album pages, or artifacts such as novelty items, shirts, coffee mugs, key chains, mouse pads, etc., bearing one or more digital images, and have them delivered to a selected list of recipients (col. 3, l. 62 to col. 4, l. 12). Chui provides no specific disclosure of monitoring the sales of goods or services at that location or any other location. Chui's system does permit a customer profile to be stored (col. 22, ll. 17-23). This user profile permits a user to store recipient groups displayed in iconographic distribution aliases 502-507 in picture delivery toolbar 500 (fig. 5), with shipping address and defaults for number and types of prints to be prepared and shipped to such recipient, shipping agent to be used, etc. Consequently, the user can order with a single click, without having to enter all the information each time a subsequent order is made (col. 8, ll. 26-38; col. 22, ll. 11-23).

As illustrated in Figure 7B, user selection of arrow 729 in menu level 712 brings up another menu level 730 showing the defaults associated with the photofinishing product to be sent to the particular recipient. According to Chui, the user can modify any of the attributes of the product within menu level 730 "by using standard cursor manipulation and text entry techniques" (col. 19, ll. 59-63). A person of ordinary skill in the art would infer that such standard cursor manipulation techniques would include placing the cursor on a menu item displayed on a visual segment of a menu of photofinishing

product or service options, similar to drop-down list 224 shown in prior art Figure 2B, displayed to the user.

Additionally, the picture delivery bar 500 appearance and functionality can be varied depending on the preferences of the system designer and/or the user (col. 16, 34-37). For example, the distribution sales aliases 502-507 could be presented as standalone entities and need not be displayed within a dedicated area, such as bar 500 (col. 16, ll. 37-39). Chui does not specifically mention re-arranging any other portions of the display.

3. Ono teaches monitoring a user's purchasing history, including keeping track of the typical purchasing frequency of some items (col. 4, ll. 34-40). When the system determines that the calculated time for expected re-purchase has arrived, the system will present that merchandise on the information supply area 1101 or 1201 of the display screen (figs. 11 and 12) for selection by the user (col. 7, ll. 18-60). The information supply area 1101 or 1201 is an area, or visual segment, of the display for supplying information of specific goods a user possibly wants to buy presently (col. 7, ll. 25-27). As seen in Figures 11 and 12, each item of merchandise is displayed in a visual segment of the information supply area. Ono provides a teaching of monitoring past sales to a customer and altering or re-arranging visual segments of the display based on said monitoring.
4. Ebrahim discloses a system for moving what would otherwise be hidden icons to visible locations of the desktop (Abstract). An exemplary desktop, with 5 icons, is illustrated in Figure 6. The user opens the MYTEXT.TXT application such that it would hide all the

other icons (fig. 9). According to Ebrahim, “the ‘moving’ behavior of icons according to the invention can be configured, for instance with respect to the working habits of the user” (col. 8, ll. 56-58). The desktop is segmented into multiple partitions each assigned a different priority to become a target portion of the desktop for displaying one or more previously hidden icons (col. 8, ll. 59-63). Ebrahim’s system will place the MY-PROGRAM icon, a frequently used icon, in the upper right corner, in the segment assigned the highest priority to become a display target to display previously hidden icons, so that it is ready to be launched (col. 9, ll. 5-46). Ebrahim establishes that it was known in the computer art to re-arrange the positions of icons (items to be selected) displayed in visual segments of a display device for ease of selection by the user, in accordance with a user profile based on habits of the user.

DISCUSSION

The Indefiniteness Rejection

The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986) (citations omitted). A claim may be invalid for indefiniteness if it is “insolubly ambiguous” and not “amenable to construction.” *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

The Examiner contends that the terminology visual "segments" renders the claims indefinite because “these segments are only generated via

the intermediary of a computer [program] and the screen can comprise an infinite number of things, not just visual segments” (Answer 4). The Examiner reasons that the use of the term “segments” to describe areas of the screen where goods or services are offered for sale is indefinite because it attempts to describe a feature not disclosed in the specification and does not accurately reflect what is occurring in the device (Answer 7). The Examiner finds “visual segment” to be a broad term, in that each raster, for example, may be considered a visual segment (Answer 7).

The Examiner’s position is not well taken. First, merely that a claim is broad does not mean that it is indefinite. *See In re Johnson*, 558 F.2d 1008, 1016 n.17 (CCPA 1977); *In re Miller*, 441 F.2d 689, 693 (CCPA 1971); and *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970). In any event, in light of the disclosure on page 14 of Appellants’ Specification and the illustration in Figure 5G, a person of ordinary skill in the art would readily appreciate that a “visual segment” of a display, as that terminology is used in the present application, is a window or display field for displaying information, such as information about photofinishing goods or services offered for sale (Fact 1). That the actual content of the visual segments is generated by a computer 14, as programmed by a computer program, does not render the claim language indefinite or misdescriptive. As pointed out by Appellants (Appeal Br. 3), the claims only require that the screen be adapted to display a plurality of visual segments, not that the screen itself actually generate the images or content displayed within those visual segments or that the screen be precluded from displaying other things.

In light of the above, we conclude that the claims are “amenable to construction” and not “insolubly ambiguous.” The rejection of claims 1-6 as indefinite is not sustained.

The Obviousness Rejection

Appellants argue the patentability of independent claims 1 and 4 separately, but do not separately argue the patentability of dependent claims 2, 3, 5, and 6 apart from the independent claim from which they depend.⁵ Therefore, in accordance with 37 C.F.R. § 41.37(c)(1)(vii) (2007), we select independent claims 1 and 4 as representative claims to decide the appeal of this rejection, with claims 2 and 3 standing or falling with claim 1, from which they depend, and claims 5 and 6 standing or falling with claim 4, from which they depend.

The Examiner’s first position⁶ in rejecting claims 1-6 under 35 U.S.C. § 103 appears to be that the last paragraphs of claim 1 and claim 4 merely require a computer capable of being programmed to perform the recited functions (Answer 8 and 11). Thus, according to the Examiner, a computer, such as that of Chui, programmed to remember goods of a particular user and URLs of that user is clearly capable of monitoring sales and re-

⁵ “A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.” 37 C.F.R. § 41.37(c)(1)(vii) (2007).

⁶ Appellants’ allegation that the Examiner’s statement of this position is a new ground of rejection (Reply Br. 7) is noted. Any allegation that an examiner’s answer contains a new ground of rejection not identified as such is waived, however, if not raised by filing a petition under 37 C.F.R. § 1.181(a) within two months of the answer. *Manual of Patent Examining Procedure* § 1207.03-IV.

arranging the icons in Appellant's Figure 5 and thus satisfies the limitations of the last paragraphs of claims 1 and 4 (Answer 11). This position is not well taken. The final paragraphs of claims 1 and 4 require a computer program that actually carries out the functions, or program steps, recited therein. In any event, it is not apparent how a computer program can have the capability to perform a function without including therein a program step of performing such function. A computer programmed to remember goods of a particular user is not sufficient to satisfy all of the requirements of the last paragraphs of claims 1 and 4.

The Examiner's alternative rationale is articulated on pages 5-6 and 9-13 of the Answer. In essence, we understand the Examiner's position to be that Chui teaches the capability to store a customer profile and to move display items, such as picture delivery bar 500, around on the display screen, but does not expressly disclose monitoring of sales of photofinishing goods and services and re-arranging visual segments of the display based on said monitoring. According to the Examiner, it would have been obvious to modify Chui to include the feature of monitoring past purchases of the customer, as taught by Ono, to generate the user profile, which includes defaults for the number and types of prints or other product to be delivered to each recipient (Fact 2). The Examiner points out that Ebrahim teaches re-arranging the position of icons to be selected based upon function and a user's habits and determines that it would have been obvious to modify Chui to include both the display re-arrangement feature of Ebrahim and the past purchase monitoring feature of Ono to enhance the shopping experience by taking the customer directly to the functions (selections) the customer is accustomed to using (Answer 6).

Appellants argue that, absent Appellants' disclosure, a person of ordinary skill in the art would not have combined the above references to achieve the claimed invention (Appeal Br. 5). According to Appellants, "there is no motivation in the disclosures of the applied references to provide for the combination and modifications as proposed" (Appeal Br. 6). More specifically, Appellants argue that Chui does not show monitoring of sales of photofinishing goods; Ono does not show the repositioning of visual segments based on the monitoring of sales of goods; and Ebrahim does not show the repositioning of elements on a screen based on the monitoring of the sales of photofinishing goods (Appeal Br. 7). Thus, according to Appellants, the applied references taken in combination would not show or suggest a computer program as claimed that is adapted to monitor the sales of photofinishing goods or services and re-arrange the position of individual segments on the screen of the display device based on the monitoring. *Id.* Therefore, the issue before us is whether it would have been obvious to a person of ordinary skill in the art to combine the teachings of Chui, Ono and Ebrahim to arrive at the subject matter of claims 1 and 4, and in particular, the computer program recited in the last paragraph of each of these claims.

While there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). While the requirement of demonstrating a teaching, suggestion, or motivation (the TSM test) to combine known elements in order to show that the combination

is obvious may be “a helpful insight,” it cannot be used as a rigid and mandatory formula. *Id.*

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740.

Chui discloses an apparatus, or kiosk, comprising a display device for displaying photofinishing goods offered for sale, in the form of menu items or visual segments of a menu, such as drop-down list 224, and a special-purpose computer system for controlling what is displayed on the display device (Fact 2). Chui’s apparatus stores a user profile permitting a user to store recipient groups, displayed in iconographic distribution aliases 502-507 in picture delivery toolbar 500, with shipping address and defaults for number and types of prints to be prepared and shipped to such recipient, shipping agent to be used, etc. *Id.* Chui also teaches varying the picture delivery toolbar 500 appearance and functionality and re-arranging the iconographic distribution aliases 502-507 depending on the preferences of the system designer and/or the user. *Id.* Chui does not specifically mention re-arranging any other portions of the display or monitoring sales of the photofinishing goods, much less re-arranging the position of visual segments

displaying photofinishing goods based on said monitoring, as called for in claims 1 and 4. *Id.*

Ono provides a teaching of monitoring past sales to a customer and altering or re-arranging visual segments of the display, including menu items for merchandize the customer possibly wants to buy presently, based on said monitoring (Fact 3). A person of ordinary skill in the art at the time of Appellants' invention would have immediately appreciated that incorporating the function of monitoring past sales of photofinishing products to a customer using Chui's kiosk, or associated kiosks located in different retail establishments, to contribute to generating a user profile and to alter the display of menu items for goods available for purchase based on said user profile would similarly improve Chui's photofinishing product ordering system. Ebrahim establishes that it was known in the computer art to re-arrange the positions of icons (items to be selected) displayed in visual segments of a display device for ease of selection by the user, in accordance with a user profile based on habits of the user. In view of the combined teachings of Chui, Ono, and Ebrahim, it would have been well within the technical grasp of a person of ordinary skill in the art to adapt the computer program of Chui's apparatus to cause the computer to re-arrange the positions of menu items (visual segments) on drop-down list 224, displaying information on photofinishing goods available for purchase and delivery, in accordance with the user profile established based on monitoring of past sales of photofinishing products to that user, at that kiosk or any associated kiosks at other retail establishments. The reason to do so would have been to display the menu items for ease of selection by the user, with the most frequently ordered items displayed in priority locations.

In light of the above, we conclude that the subject matter of claim 1 is a predictable variation of Chui's apparatus and, as such, would have been obvious to a person of ordinary skill in the art at the time of Appellants' invention. The rejection of claim 1, and claims 2 and 3, which stand or fall with claim 1, is sustained.

Appellants additionally argue that Ono does not show or suggest the combination of monitoring the sales of goods or services at a plurality of locations and re-arranging the position of visual segments on the display device based on said monitoring, as required in claim 4 (Appeal Br. 8). While Ono does not provide a precise teaching to monitor the user's purchases from a plurality of ordering or purchasing locations, a person of ordinary skill in the art would appreciate that, when creating a user profile, it is the analysis of the purchases of the provider's photofinishing products by that particular user, regardless of the particular kiosk from which those purchases were ordered, that is relevant. A person of ordinary skill in the art would also appreciate that users may not always order their photofinishing products from the same location. Consequently, to monitor sales of the provider's photofinishing products to a particular user at kiosks at a plurality of retail locations and to create the user profile based on such monitoring would have involved only ordinary creativity.⁷ As discussed above, in view of the combined teachings of Chui, Ono, and Ebrahim, it would have been well within the technical grasp of a person of ordinary skill in the art to adapt the computer program of Chui's apparatus to cause the computer to re-arrange the positions of menu items (visual segments) on drop-down list

⁷ "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR*, 127 S.Ct. at 1742.

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224, displaying information on photofinishing goods available for purchase and delivery, in accordance with the user profile established based on monitoring of past sales of photofinishing products to that user, at that kiosk or any associated kiosks at other retail establishments. The reason to do so would have been to display the menu items for ease of selection by the user, with the most frequently ordered items displayed in priority locations.

In light of the above, we conclude that the subject matter of claim 4 is a predictable variation of Chui's apparatus and, as such, would have been obvious to a person of ordinary skill in the art at the time of Appellants' invention. The rejection of claim 4, and claims 5 and 6, which stand or fall with claim 4, is sustained.

ORDER

The rejection of claims 1-6 under 35 U.S.C. § 112, second paragraph, is reversed. The rejection of claims 1-6 under 35 U.S.C. § 103(a) is sustained. The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

vsh

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