

The opinion in support of the decision being entered
today was **not** written for publication and is **not**
binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEPHANOS MANGANARIS and JAMES R. KRAEMER

Appeal No. 2006-1934
Application No. 09/798,833
Technology Center 3600

ON BRIEF

Before CRAWFORD, LEVY and NAPPI, **Administrative Patent Judges**.

NAPPI, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134(a) of the final rejection of claims 1 through 6, which constitute all the claims in the application. For the reasons stated *infra* we affirm the examiner's rejection of these claims.

Invention

The invention relates to method of assessing the potential for change in the value of a customer. Data mining techniques are used to analyze historic customer data. Based upon the analysis more informed decisions about marketing strategies can be made. See pages 2 and 3 of appellants' specification. Claim 1 is representative of the invention and reproduced below:

1. A computer-implemented method for assessing potential marketing action to be taken by a business with respect to a customer-of-interest in a set of customers, comprising the steps of:
 - (a) identifying, via said computer, a historical customer value (HCV) for said customer of interest;
 - (b) computing, via said computer, an intrinsic customer value (ICV) of said customer-of-interest based on an HCV of said customers from said set of customers that are similar to said customer of interest;
 - (c) comparing, via said computer, said HCV and ICV of said customer of interest to develop a comparison result; and
 - (d) identifying marketing steps to be taken with respect to said customer-of-interest based on said comparison result.

Reference

The reference relied upon by the examiner is:

Lazarus et al. (Lazarus) 6,430,539 Aug. 6, 2002

Rejection at Issue

Claims 1 through 6 stand rejected under 35 U.S.C. § 102 (e) as being anticipated by Lazarus. Throughout the opinion we make reference to the briefs, the answer and the Office action for the respective details thereof.

Opinion

We have considered the subject matter on appeal, the rejection advanced by the examiner and the evidence of anticipation relied upon by the examiner in support of the rejection. We have likewise, reviewed and taken into consideration, in reaching our decision, appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer.

With full consideration being given to the subject matter on appeal, the examiner's rejection and the arguments of appellants and the examiner, and for the reasons stated *infra* we sustain the examiner's rejection of claims 1 through 6 under

35 U.S.C. § 102(e).

Initially, we note that on pages 6 and 7 of the brief, appellants present arguments directed to the examiner's rejection of claims 1 through 6 under 35 U.S.C. § 102(e). Appellants' arguments do not separately argue any of the claims, accordingly we group claims 1 through 6 and treat claim 1 as representative of the group.

Appellants state, on page 6 of the brief, that one of the critical elements of the invention is the comparison of the customer's Historical Customer Value (HCV) with the customer's Intrinsic Customer Value (ICV). Appellants argue that Lazarus does not teach such a comparison. Appellants admit that Lazarus teaches storing customer historical data, however, appellants argue that the historical customer data is not an HCV as defined in appellants' specification. On page 7 of the brief, Appellants' argue that even if this historical customer data were considered to be the claimed HCV there is no teaching of comparing that value with a predicted value for the customer such as an ICV. Appellants assert that Lazarus teaches the comparison of predicted values for a customer with the predicted customer values for all customers, but not the historical customer value (citing Lazarus column 9, lines 40-46). Finally, appellants assert:

present claimed invention provides information about a customer's potential to change behavior with respect to a particular merchant, not about the customer's alignment to various merchant segments (as is described in Lazarus).

The examiner responds to appellants' arguments on pages 3 through 6 of the answer. On pages 3 through 5 of the answer, the examiner provides the rationale supporting her determination that the scope of the claim term "intrinsic customer value" includes: determining "based on a comparison between the customer's historic value in relation to his/her potential value as defined by an average of the historic values of other people who are within the same segment as the customer in question." See page 5 of the answer. Based upon this claim interpretation, the examiner, provides, on pages 5 and 6 of the answer, an explanation of how Lazarus' teaching of placing a customer in various merchant segments, which are determined based upon historic data of the customer and other customers, meets this limitation.

In the reply brief appellants argue that the examiner has “failed to show that Lazarus teaches a determination of a historical customer value, that is the actual value of the customer (e.g. dollars spent) to a particular business entity.” Further, appellants argue that the examiner has not shown how Lazarus teaches a determination of an intrinsic customer value. Appellants’ state: “[i]n simplistic terms, the claimed invention compares one actual customer specific value (the HCV) with another customer-specific estimated value (the ICV), while Lazarus teaches the comparison of a predicted customer value with a predicted market segment value.”

We concur with the rationale applied by the examiner in determining the scope of claim 1 and with the examiner’s findings of fact regarding the Lazarus reference. Appellants’ arguments have not convinced us of error in the examiner’s rejection. Initially, we note that we do not find a limitation in claim 1 that limits the method to one which “provides information about a customer’s potential to change behavior with respect to a particular merchant” as asserted by appellants. Nor, as discussed *infra*, do we find that such a limitation is implied by the terms Historical Customer Value or Intrinsic Customer Value.

Claims will be given their broadest reasonable interpretation consistent with the specification, and limitations appearing in the specification will not be read into the claims. *In re Etter* 756 F.2d 852, 858, 225 USPQ 1, 5 (Fed. Cir. 1985). In analyzing the scope of the claim, office personnel must rely on the appellants’ disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980, 34 USPQ2d 1321, 1330 (Fed. Cir. 1995).

“[I]nterpreting what is *meant* by a word in a claim ‘is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.’” (Emphasis original) *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1348, 64 USPQ2d 1202, 1205, (Fed. Cir. 2002) (citing *Intervet America Inc v. Kee-Vet Laboratories Inc.* , 887 F.2d 1050, 1053, 12 USPQ2d 1474, 1476 (Fed. Cir. 1989)).

The term Intrinsic Customer Value (ICV) is defined by appellants in the originally filed specification. As identified by the examiner on page 3 of the answer, appellants' specification, on page 5, provides the following definition:

The term "Intrinsic Customer Value" as used herein is defined as a particular customer's (or group of customers with the same or similar characteristics) expected value based on the historical value of other similar customers.

Page 5 of appellants' specification also states that while value in most cases refers to money it may also refer to other values of a customer. Further, the definition does not mention relation to merchants, we note that page 12 identifies that the historical data may be mined for just customers of a single merchant (one casino) or customers from all merchants in a group (all casinos). Thus, while appellants' specification clearly suggests that the scope of claim 1 includes the ICV, being monetary value to one merchant, we do not find that the term ICV is limited to exclude non-monetary value or that the value represents only value to one merchant. Thus, we concur with the examiner's holding that the term ICV is limited to the customer's expected value based upon the historical value of other customers, where value is value to one or more merchants and is monetary or other value to the merchant(s).

The term Historic Customer Value (HCV), is not specifically defined in appellants' originally filed specification. However, based upon the discussion of the ICV being created from historical values (on page 5 of appellants' specification), and the discussion of mining data (on page 12 of appellants' specification) we consider the term HCV to be the past (historical) value of the customer to the merchant(s). As discussed above with respect to ICV, we do not find that the term HCV is limited to exclude non-monetary value or that the value represents only value to one merchant. Thus, we consider the term HCV to be historical value of the customer, where value is value to one or more merchants and represents monetary or other value to the merchant(s).

Claim 1 recites computing the ICV "based on an HCV of said customers from said set of customers that are similar to said customer of interest" and comparing "said HCV and ICV of said customer of interest to develop a comparison result" and

identifying marketing steps based upon the comparison result. Thus, the claim requires that the ICV for a customer be computed from the HCV of customers similar to the customer of interest, that the customer's individual ICV and HCV are compared and the results are used to identify marketing steps.

We find that Lazarus teaches a system to predict consumer behavior. The system creates a grouping of merchants which are frequently shopped at within some number of transactions or period of time of each other. The transaction data is gathered from credit card spending data, amount spent and sequence of spending (i.e. historical data which includes value). See column 3, lines 11 through 25 and column 10, lines 40 through column 11, line 6. The vendors in the cluster are assigned a merchant vector. See column 3, lines 32 through 53. Customers also have a profile which includes a consumer vector, which is a summation of the merchant vectors from recent purchases. See column 3, lines 60 though 65. For each consumer a membership function is used to define how strongly the consumer is associated with each merchant segment. See column 4, lines 45 through 62. Further, Lazarus teaches, in column 39 lines 5 through 26, that changes in a customers' membership functions in successive time intervals are used to predict changes in spending by a consumer in a segment and are useful in targeting promotional offers. Thus, we consider Lazarus' merchant clusters and merchant profiles to represent data of a set of customers that are similar to the customer of interest, and the customer's membership function to meet the customer's historic customer value, as it represents a value to merchants based upon historical data. Further, as Lazarus discusses in column 39, in subsequent time intervals, new membership functions are determined for the customer, which are based upon the set of data of customers that are similar to the customer of interest (the merchant clusters and merchant vectors). As such we consider this to meet the claimed customer's intrinsic customer value. Lazarus teaches that these values are compared to develop a result that is used in targeting promotional offers (a marketing step). Thus, appellants' arguments have not convinced us of error in the examiner's rejection and we find ample evidence of record to support the examiner's finding that Lazarus discloses the invention as claimed.

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Conclusion

In summary, we sustain the examiner's rejection of claims 1 through 6 under 35 U.S.C. § 102(e). The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

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| MURRIEL E. CRAWFORD |) | |
| Administrative Patent Judge |) | |
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| |) | BOARD OF PATENT |
| STUART S. LEVY |) | APPEALS AND |
| Administrative Patent Judge |) | INTERFERENCES |
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