Exhibit 4

INVALIDITY CLAIM CHART FOR U.S. PATENT NO. 5,544,352
OF CERTAIN EXEMPLARY COMBINATIONS

Each reference identified as anticipatory of any claim herein in Defendants' P. R. 3-3 Disclosure also renders such claim obvious alone and in view of any of the one or more other references as identified in the chart below. In addition, combinations of two or more of the references identified in the chart below render the claims obvious.

Claim Text from '352 Patent	References
26. A non-semantical method for numerically representing objects in a computer database and for computerized searching of the numerically represented objects in the database, wherein direct and indirect relationships exist between objects in the database, comprising:	Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Collections, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Shaw Part II, 1991;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Botafogo, 1992;Alain, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Nielsen, 1990;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Salton, 1975;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992;Weiss, 1996: ENVISION;SMART
[26a] marking objects in the database so that each marked object may be individually identified by a computerized search;	Kessler, 1967;Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Collections, 1983;Fox Thesis, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, 1989;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Shaw Part II, 1991;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Alain, 1992;Shepherd, 1990;Guinan, 1992;Salton, 1988;Nielsen, 1990;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992;ENVISION;SMART
[26b] creating a first numerical representation for each identified object in the database based upon the object's direct relationship with other objects in the database;	Kessler, 1967;Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Collections, 1983;Fox Thesis, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, 1989;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Shaw Part II, 1991;Chen, 1992;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton,

Claim Text from Base Patent	References
	1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Botafogo, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Nielsen, 1990;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992; Weiss, 1996; ENVISION;SMART
[26c] storing the first numerical representations for use in computerized searching;	Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Collections, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, 1989;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Shaw Part II, 1991;Chen, 1992;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Botafogo, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Nielsen, 1990;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992; Weiss, 1996; ENVISION;SMART
[26d] analyzing the first numerical representations for indirect relationships existing between or among objects in the database;	Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Collections, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, 1989;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Shaw Part II, 1991;Chen, 1992;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Botafogo, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Nielsen, 1990;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Salton, 1975;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992; Weiss, 1996; ENVISION;SMART
[26e] generating a second numerical representation of each object based on the analysis of the first numerical representation;	Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Collections, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, 1989;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Shaw Part II, 1991;Chen, 1992;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Botafogo, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Salton, 1975;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada,

Claim Text from U.S. Patent	References
[26f] storing the second numerical representation for use in computerized searching; and	1991;Intermedia;Chen Thesis, 1992; Weiss, 1996; ENVISION;SMART ;Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Thesis, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part II, 1991;Chen, 1992;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Botafogo, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Nielsen, 1990;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Salton, 1975;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992; Weiss, 1996; ENVISION;SMART
[26g] searching the objects in the database using a computer and the stored second numerical representations, wherein the search identifies one or more of the objects in the database.	Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Thesis, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Chen, 1992;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Frei & Steiger, 1992;Shimko, 1974;Bichteler & Eaton, 1977;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Pinski, 1976;Garner, 1967;Alain, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Burt, 1991;Lucarella, 1990;U.S. Pat. No. 5,446,891;Rose, 1989;UCINET, 1992;Belew, 1986;Salton, 1975;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992; Weiss, 1996; ENVISION;SMART
27. The non-semantical method of claim 26, wherein the objects in the database include words, and semantic indexing techniques are used in combination with the non-semantical method, the method further comprising the step of creating and storing a Boolean word index for the words of the objects in the database.	Kessler, 1967;Salton, 1971;Garfield, 1979;Fox/Smart, 1983;Fox Collections, 1983;Fox Thesis, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Nielsen, 1990b;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part II, 1991;Betrabet, 1993;Brunei, 1993;Bourne and Hahn, 2003;TIP;Shimko, 1974;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Frisse, 1988;Salton, 1963;Kochtanek, 1982;Gelbart, 1991;Croft, 1993;Goffman, 1969;Alain, 1992;Shepherd, 1990;Schiminovich, 1971;Guinan, 1992;Salton, 1988;Lucarella, 1990;Rose, 1989;Belew, 1986;Rose, 1991;Pirolli, 19996;Bichteler & Parsons, 1974;Rada, 1991;Intermedia;Chen Thesis, 1992; Weiss, 1996; ENVISION;SMART
28. The non-semantical method of claim 26 wherein the first and second numerical representations are vectors that are arranged in first and second matrices;	Salton, 1971;Fox/Smart, 1983;Fox Collections, 1983;Fox Thesis, 1983;Fox, 1984;Fox, 1985;Armstrong, 1988;Fox, 1988;Croft, Lucia, 1989;Frisse/Cousins, 1989;Thompson, 1989;Kommers, 1990;Berk, 1991;Dunlop, 1991;Turtle, 1991;Turtle & Croft, 1991;Shaw Part I, 1991;Shaw Part II, 1991;Betrabet, 1993;Frei & Steiger, 1992;Shimko, 1974;Salton, 1970;Salton and McGill, 1983;Salton, 1968;Tapper, 1982;Salton, 1963;Gelbart, 1991;Croft,

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