

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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FACEBOOK, INC., LINKEDIN CORP., and TWITTER, INC.,  
Petitioners

v.

SOFTWARE RIGHTS ARCHIVE, LLC  
Patent Owner

Patent No. 5,832,494  
Issue Date: November 3, 1998  
Title: METHOD AND APPARATUS FOR INDEXING,  
SEARCHING AND DISPLAYING DATA

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*Inter Partes* Review No. IPR2013-00479

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**PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE**

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## I. Claim Construction

Patent Owner's ("PO") arguments assume overly narrow constructions of two terms that the Board did not construe, which are discussed here.

**A. "Database."** PO contends that "database" should be limited to "the contents of . . . the database of numerically represented objects" or "an organized collection of electronic documents." (Ex. 2113, ¶ 98, n. 12; Ex. 1234, 12:9-15.) But the specification states that the database "can be any device which will hold data," for example, "any type of magnetic or optical storing device," located locally to or remotely from the computer. (Ex. 1001, 9:46-51.)

**B. "Numerical Representation."** PO contends that a "numerical representation" must consist solely of human-readable numbers and cannot include letters. (Patent Owner Response ("POR") at 11, 36.) But the specification does not support such a narrow reading. A "numerical representation" instead includes any representation of binary or digital data that can be processed and analyzed by a computer. The specification describes a "citation vector" that PO concedes is a "numerical representation" (POR at 10), but the specification does not mandate any format for the data – let alone require that the vector consists only of human-readable numbers. (Ex. 1201, 16:47-17:32; Ex. 1235, 302:7-305:2, 320:19-325:4.)

The intrinsic record refutes PO's assertion that a "numerical representation" consists solely of human-readable numbers. The '494 patent discusses prior art

“key numbers” used by Westlaw. (Ex. 1201, 2:25-29.) As confirmed in Westlaw’s patent cited during the ’494 prosecution, key “numbers” include letters as well as numbers. (Ex. 1237, col. 8:18-20, 11:3-12:8 (cited Westlaw patent identifying exemplary “Key Numbers” such as “170AK2515”).) “[P]rior art cited in a patent or cited in the prosecution history of the patent constitutes intrinsic evidence” for claim construction purposes. *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1231 (Fed. Cir. 2011). A “numerical representation” therefore is not limited to human-readable numbers and may include letters or other data.

## **II. The Fox Papers Render Obvious Claims 18-20, 48, and 49.**

**Claim 18 Preamble.** The Board correctly found that the Fox Papers disclose analyzing “a database having objects and a first numerical representation of direct relationships in the database.” (Paper 18 at 14.) The Board correctly found that the Fox Papers’ tuples, which are stored in a storage device (database) and analyzed, disclose a “first numerical representation of direct relationships” in the database. (Paper 18 at 11, 14, citing Ex. 1008 at 29-30; Ex. 1218, ¶¶ 94, 102.) The Fox Papers explain that the SMART system’s storage device contains document objects (*e.g.*, files including textual Abstract, bibliographic data, etc.) and a set of numerical tuples “describing which documents are cited by others.” (Fox SMART at 29-30; Ex. 1206 at 14-15 (describing “Raw\_data (citing, cited) which contained pairs of identifiers”); Fox Thesis at 211 (document id’s are

numbers); Ex. 1218, ¶¶ 75-89.) The Fox Papers therefore disclose a database with objects and a first numerical representation (citation data) of direct relationships in the database.

PO presents a series of arguments that appear to be based on language that does not appear in claim 18, but instead pertain to claim 26 of the '352 patent, the subject of the separate IPR2013-00478 proceeding. PO appears to have copied-and-pasted arguments about claim 26 of the '352 patent from its written response in IPR2013-00478 into its response here. (POR at 8-10, 13-15, 22-23, 24-25, 36-37.) But unlike the '352 patent, the challenged claims of the '494 patent do not recite the step of “creating” the first numerical representation. The claims also do not require that objects have “direct relationships with other objects in the database.” PO’s arguments based on non-existent claim language therefore fail.

PO’s related argument that the Fox Papers relate only to “printed documents that were never stored in any electronic database” (POR at 12) is irrelevant. As noted, Fox discloses a database with objects having relationships as reflected by the citation data. For example, the SMART system described in the Fox Papers discloses a storage device (database) having identifiers, Abstracts and portions of text and other data from the papers (*e.g.* “objects”), along with citation data (*e.g.* “relationships”). Whether the system stored the full-text of the printed documents is irrelevant to whether it disclosed “objects” in a database as claimed.

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