

# Israeli prof's algorithm looks at linguistic cues to find Bible authors

JERUSALEM - A Tel Aviv University professor has developed a computer program to help Bible scholars distinguish different authors of the various books of the Bible.

Many books of the Old and New Testaments are thought to be composites, but distinguishing among the multiple sources has been a difficult process.

Nachum Dershowitz, computer science professor at Tel Aviv University, said his computer algorithm can help unravel the different sources by recognizing linguistic cues, such as word preferences, to divide texts into probable author groupings.

The researchers used the computer software program on the original Hebrew-language Bible, but said that, with adjustments, it could be used on other parts of the Bible.

"Bible scholars have many clues as to the sources and styles, but what we are trying to do is to use the most objective of methods," said Dershowitz, who worked in collaboration with his son, Bible scholar Idan Dershowitz of Hebrew University, and Moshe Koppel, professor, and doctoral student Navot Akiva of Bar-Ilan University. "In any narrative an author may choose to repeat (certain words) for literary reasons ... other scholars may (look) at stylistic preferences. We are only looking at word usage."

Nachum Dershowitz noted that the research is part of a growing new field called "digital humanities" in which computer software is being developed to give more insight into historical sources and programs to help attribute previously anonymous texts to well-known authors based on writing style. Dershowitz said such programs

can even uncover the gender of a text's author.

"The Bible presents a new challenge because there are no independently attributed works to which to compare the biblical books," Dershowitz said.