Google Books may advance humanities research, scholars say

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When scholars seek to understand long-ago cultures, they tend to draw conclusions from the handful of famous writers and thinkers whose works endure today. John Stuart Mill and Thomas Carlyle peppered their books with words like "sunlight" and "hope," so their Victorian era is often thought of as earnest and optimistic.

But how did the hundreds of lesser-known Victorian writers regard the world around them? This question and many others in fields like literature, philosophy and history may finally find an answer in the vast database of more than 12 million digital books that Google has scanned and archived.

Google, scholars say, could boost the new and emerging field of digital humanities, which over the past few years has humanities researchers increasingly joining with computer scientists to answer questions that they could hardly conceive of asking before.

At Stanford University, for example, humanities professors are linking up with computer scientists to map a "Republic of Letters," illustrating the pathways between Paris, London and other cities traveled by letters written by intellectuals like Voltaire. Richard White, a Stanford history professor, is using 19th-century railroad freight rates to build database and computer graphics tools that illustrate how people's experience of space and time was reshaped by the coming of the railroads in the West.

The application of computers that can analyze large amounts of data to
fields like history and literature "is changing things a lot," said White, director of the Spatial History Project at Stanford. "We have to overcome a pretty skeptical audience among other historians. We have to be modest in our claims." But, he said, "This allows us to do things that we could never do before."

Google recently named a dozen winners of its first-ever "Digital Humanities Awards," setting aside about $1 million over two years to help teams of English professors, historians, bibliographers and other humanities scholars harness the Mountain View, Calif., search giant's algorithms and its unique database of digital books. Among the winners was Dan Cohen, a professor of history and new media at George Mason University, who hopes to come up with a much broader insight into the Victorian mind, overcoming what he calls "this problem of anecdotal history."

"What's incredible about the Google database is that they are really approaching a complete database of Victorian books," Cohen said. "So we have the possibility, for the first time, of going to something that's less anecdotal, less based on a chosen few authors; to saying, 'Does that jibe with what the majority of authors were saying at that time?' "

White said the Google awards could boost the emerging field of digital humanities if the winning teams can produce research or tools other scholars can use. "I'm all for it and I really look forward to what happens with these projects," he said. "If they work, they will certainly make the lives of a lot of scholars a lot easier."

Google has the world's largest collection of digital books. The company's ambitious plans to scan the world's books, however, have been fraught with legal troubles, including a class-action lawsuit brought by authors and publishers over copyright issues for more recently published books, and a surge of opposition from scholars and consumer
advocates who contend the plan gives Google too much control over a priceless store of information. Because many of the digital texts scholars will investigate were first published before 1900 or even 1800, copyright concerns are less of an issue for digital humanities studies.

Jon Orwant, engineering manager for Google Books, said the company decided to offer the digital humanities awards in part to highlight the scholarly value of Google's technical achievement.

"Up until recently, we have been so focused on those technical challenges -- I'll admit there were some legal challenges we also had -- that we never had a chance to reflect on the corpus we had created," Orwant said. "I started going to conferences where people would talk about the current state of data mining in the humanities, and I realized that at Google, we were sitting on this huge trove of value."

Besides the Victorian study, the winning teams include a partnership between the University of California Riverside and Eastern Connecticut State University to improve the identification of books published before 1801 in Google's digital archive, and a team including the UC Berkeley and two British universities to develop a "Google Ancient Places" index. It would allow anyone to query Google Books to find titles related to a geographic location and time period, and then visualize the results on digital maps.

"We have the ability to harness vast amounts of information collected from different places," said Eric Kansa, a UC Berkeley researcher working on the ancient places project, "and put them together to get a whole new picture of ancient cultures."

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