Google is creating an information bridge between its influential Internet search engine and its widely used Gmail service in its latest attempt to deliver more personal responses more quickly.

The experimental feature unveiled Wednesday will enable Google's search engine to mine the correspondence stored within a user's Gmail account for any data tied to a search request. For example, a query containing the word "Amazon" would pull emails with shipping information sent by the online retailer.

Such Gmail results will typically be shown to the right of the main results, though in some instances, the top of the search page will highlight an answer extracted directly from an email. For example, the request "my flight" will show specific airline information imported from Gmail. Something similar could eventually happen when searching for a restaurant reservation or tickets to a concert.

Although Google has a commanding lead in Internet search, it remains worried about the threat posed by social networking services such as Facebook Inc. As social networks have made it easier to share information online, the Web is starting to revolve more around people than the keywords and links that Google's search engine.

Google has been trying to adapt by building more personal services and plugging them into its search engine.

Blending email information into general search results could raise privacy worries. Google is trying to mitigate that by showing Gmail results in a collapsed format that users must open to see the details. For now, users must sign up to participate.

Google Inc. ran into trouble over privacy in 2010 when it tapped the personal contact information within Gmail accounts to build a social networking service called Buzz. Google set up Buzz in a way that caused many users to inadvertently expose personal data from Gmail. An uproar culminated in a Federal Trade Commission settlement requiring the company to improve its privacy controls and undergo audits for 20 years.

Google is treading carefully as it hooks Gmail up to its Internet search engine. The new feature initially will be available to 1 million Gmail users who sign up at http://g.co/searchtrial. That's a small fraction of the more than 425 million Gmail accounts that have been set up since Google launched its free email service eight years ago to compete against the offerings from Yahoo Inc. and Microsoft Corp.

After getting feedback from the test participants, Google hopes to give all Gmail users the option of plugging their accounts into the main search engine, according to Amit Singhal, a senior vice president for the company.

Singhal said Google is also willing to display information from other email service in its main search results. The gesture could avoid spurring additional complaints about Google abusing its position as the Internet's search leader to favor its other services. That issue is the focal point of an antitrust investigation by antitrust regulators in the
U.S. and Europe.

Yahoo and Microsoft, the biggest rivals to Gmail, had no comment about Google's offer.

When it started in 2004, Gmail provided 1 gigabyte of free storage, an amount that was unheard of at the time. Now, many long-time Gmail users have 10 gigabytes of storage. That has turned Gmail into a valuable storehouse of personal information going back several years.

Gmail users already can pluck information contained in old correspondence by conducting a search within Gmail. Google is betting Gmail users will appreciate being able to eliminate a step by including any relevant email information alongside the results of its main search page.

In the process, Google is hoping Web surfers will have even more reasons to use its dominant search engine, which already processes more than 100 billion requests every month.

Luring more queries is crucial to Google because they give the company more opportunities to show the ads that generate most of its revenue, which is expected to exceed $49 billion this year.

Personal information from Google Plus, a social networking service started last year to compete with Facebook, has been featured in Google's main search results since January.

Ultimately, Google hopes to know enough about each of its users so it can answer their questions with the precision and insight of the artificial intelligence that so far has been the stuff of science fiction.

"The destiny of search is to become that perfect Star Trek computer," Singhal said.

In another step toward that goal, Google said Wednesday that it will soon be releasing an improved version of its voice-powered search application for Apple Inc.'s iPhone and iPad.

Google released the tool last month on its Nexus 7 tablet computer and other devices running on the latest version of its Android mobile operation system. The version for Apple's operating system, expected within a week, will be an alternative to Siri, the built-in virtual assistant on the iPhone 4S.