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## Google

Google was founded by Larry Page and Sergey Brin while graduate students at Stanford University and has become a leading Internet and computer software corporation best known for developing the world's most popular Web search engine. The company derived its name from the word *googol*, a term that represents 10 to the power of 100 (the numeral one followed by 100 zeros). Google Inc. rose to prominence in the 2000s due to a combination of technical innovation and strategic acquisitions, with its initial public offering taking place August 19, 2004. While the majority of revenues come from advertising, Google also offers a variety of other products and services such as Google Books (an electronic repository of scanned texts), Gmail (an e-mail system), Google Earth, and mobile technologies. In addition to more consumer-oriented social networking services, Google also helped to create a tool for software developers called OpenSocial in 2007 to facilitate the creation of social networking applications.

Google, which uses innovative networking principles behind its search engine, has made recent forays into social networking. The culture of Google Inc. is informal and encourages creativity, personal interest, and ethics. Even its internal structure and communication network is driven not by a bureaucratic structure but rather by the interests and market opportunities of its employees.

## Networking Principles of Google

The Google Web search engine uses a breakthrough networking technology called PageRank. Early Web search engines retrieved pages based on the number of times that keywords specified by the user appeared. This approach was problematic because Web designers embedded popular keywords repeatedly on pages, which artificially inflated the importance of their sites while at the same time leading frustrated Web surfers to retrieve low-quality or irrelevant information.

Google dramatically improved upon this technique by not only considering page content in rankings but also more than 200 other signals, including how pages are networked together. PageRank uses this approach to examine the Web's link structure to determine which pages are most important. Under this system, links are considered "votes" for particular pages, especially those links from pages deemed important by virtue of their own network position.

Another Google technology called Hypertext Matching Analysis examines page content in a more advanced way. It considers not only keywords but also fonts, subdivisions, and word locations. These innovations, along with advances in speed of information retrieval, have helped propel Google to success.

## Google and Social Networking

Google Inc. still considers searching to be at the heart of its operations, and the company's search engine remains the most popular dedicated site of its type on the Web. However, it has been challenged in overall popularity by

“Search 3.0” engines, since they perform many page-content (1.0) and linkage (2.0) search functions through personal networks (3.0). In other words, social media provide users with a network of credible human sources who can be “searched” and interacted with based on what they are sharing, linking, publishing, and tagging. In response to the challenge of social media, Google introduced new social networking innovations.

Google's attempts at social networking are built on its successful search engine and Gmail, its electronic mail system. The first and most basic application allows users to create simple profiles with personal information that appears when they are searched for, or “googled.” This gives users a controlled social presence within the existing Google search infrastructure. A related feature called Social Search, launched in 2009, helps people find more relevant content from their social circle.

Google introduced a more advanced social networking service in 2010 called Google Buzz, giving Gmail users the ability to share updates, photos, videos, and other information with friends. According to *New York Times* reporters Miguel Helft and Brad Stone, Buzz is Google's boldest attempt to compete with Facebook and Twitter. Unlike these services, which require users to manually add “friends,” Buzz automatically generates a personal social network for users based on the individuals they communicate with more frequently via Gmail and Google's chat service. This has led to privacy concerns because Buzz discloses a user's most frequent contacts automatically through their public profile. The mobile version of Buzz also discloses a user's exact location when they post a message. The privacy issues swirling around Buzz have led to a class action lawsuit, an FTC complaint, and other criticisms. It remains to be seen if Buzz can overcome this negative publicity and become a popular social networking force.

## Google's Culture and Structure

Google as an organization has a reputation for an informal culture that encourages creativity, as well as employees to spend 20 percent of their time pursuing projects of personal interest. It also provides a long list of amenities in its corporate offices, such as access to recreation centers, washing machines, massages, and snacks and beverages. Emphasis is placed on the company exhibiting ethical behavior while demanding peak performance by employees. The corporate headquarters, called the Googleplex, is located in Santa Clara County, California, and is known for its eclectic décor such as lava lamps in the lobby, bikes and skateboards in the hallways, and the utilization of solar panels and other green technologies. Google regularly appears on *Fortune* magazine's 100 Top Places to Work list, ranking number four in the 2010 edition.

This culture is supported by an internal communication network that is driven not by bureaucratic structures such as department membership and hierarchy but by employees' interests and market opportunities. According to Douglas Merrill, who in 2005 was a senior director of information technology, those who work at Google must share data, learn from each other, and avoid building corporate silos.

Open communication, a flat structure, and transparency are sought, and emphasis is placed on merit and performance as opposed to length of tenure. Employees work on small projects that average three months in length, which creates a communication network that changes rapidly to both facilitate innovation and respond to changing technology and market conditions. Google represents the type of firm described by organizational researchers Tom Burns and G. M. Stalker, who coined the term *organic organization*, and by Charles Heckscher, who offered up the term *postbureaucratic organization*.

## Conclusion

Google has emerged as one of the most recognized and successful corporations in the world. It remains the most popular Internet search engine, with many using the phrase *googling a topic* rather than *searching a topic*. Through internal innovations and strategic acquisitions, Google has begun to diversify its business model away from an almost complete reliance on advertising revenue, while gaining a foothold in the online social networking arena. Given its exhibited and continued ability to develop creative applications, Google Inc. will likely continue to be at the forefront of the online world.

Paul Skalski Robert Whitbred Cleveland State University **See Also:**

[Facebook](#)

[Networks, Privacy in](#)

[Organizational Networks](#)

[Yahoo!](#)

[YouTube and Video Exchange.](#)

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### Further Readings

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