

Facebook Leads an Effort to Lower Barriers to Internet Access

By **Vindu Goel**

Aug. 20, 2013

MENLO PARK, Calif. — About one of every seven people in the world uses Facebook. Now, Mark Zuckerberg, its co-founder and chief executive, wants to make a play for the rest — including the four billion or so who lack Internet access.

On Wednesday, Facebook announced an effort aimed at drastically cutting the cost of delivering basic Internet services on mobile phones, particularly in developing countries, where Facebook and other tech companies need to find new users. Half a dozen of the world's tech giants, including Samsung, Nokia, Qualcomm and Ericsson, have agreed to work with the company as partners on the initiative, which they call Internet.org.

The companies intend to accomplish their goal in part by simplifying phone applications so they run more efficiently and by improving the components of phones and networks so that they transmit more data while using less battery power.

For Mr. Zuckerberg, the formation of the coalition is yet another way in which he is trying to position himself as an industry leader. He has been speaking out more forcefully than other tech executives on topics like immigration overhaul, which the industry sees as critical to its hiring needs. With Internet.org, he is laying out a philosophy that tries to pair humanitarian goals with the profit motive.

“The Internet is such an important thing for driving humanity forward, but it’s not going to build itself,” he said in a recent interview. “Ultimately, this has to make business sense on some time frame that people can get behind.”

But the effort is also a reflection of how tech companies are trying to meet Wall Street's demands for growth by attracting customers beyond saturated markets in the United States and Europe, even if they have to help build services and some of the infrastructure in poorer, less digitally sophisticated parts of the world.

Google, for example, began a program with phone carriers last year that offers wireless users in some developing countries free access to Gmail, search and the first page clicked through from a search's results. Google is also reaching for the sky with Project Loon, an attempt to beam Internet access down to earth from plastic balloons floating more than 11 miles in the atmosphere.

Twitter, which is preparing to offer shares to the public in an initial stock offering, has struck its own deals with about 250 cellphone companies in more than 100 countries to offer some free Twitter access, and worked to make sure its service is easy to use on even the cheapest cellphones.

These companies have little choice but to look overseas for growth. More than half of Americans already use Facebook at least once a month, for instance, and usage in the rest of the developed world is similarly heavy. There is nearly one active cellphone for every person on earth, making expansion a challenge for carriers and phone makers.

Poorer countries in Asia, Africa and Latin America present the biggest opportunity to reach new customers — if companies can figure out how to get people there online at low cost.

The immediate goals of the new coalition are to cut the cost of providing mobile Internet services to 1 percent of its current level within five to 10 years by improving the efficiency of Internet networks and mobile phone software. The group also hopes to develop new business models that would allow phone companies to provide simple services like e-mail, search and social networks for little or no charge.

While that sounds far less exciting than, say, Google's idea of delivering the Internet by balloon, Mr. Zuckerberg says small efforts can add up to big changes.

“No one company can really do this by itself,” he said.

Facebook is already working on techniques to reduce the average amount of data used by its Android mobile app from the current 12 megabytes a day to 1 megabyte without users noticing.

Qualcomm, whose chip technology is prevalent in advanced cellphones, has created new designs to stretch a phone’s battery life, slice the amount of data needed to transmit a video and extend the reach of mobile networks through tiny devices similar to Wi-Fi routers.



From left, Jay Parikh, Javier Oliván and Aaron Bernstein, Facebook officials involved with a consortium trying to deliver free or cheap ways to use the Internet to people who lack access. Jim Wilson/The New York Times

The coalition partners have also begun trying new ways of reducing the data charges paid by cellphone customers while still enabling phone makers and carriers to make money.

For example, Nokia, the Finnish cellphone maker, ran a recent experiment with Facebook and the Mexican phone carrier Telcel, in which it bundled free Facebook access with some of its Asha feature phones. Sales rose significantly, and the company decided to run similar promotions for customers of Bharti Airtel, a mobile carrier in India and Africa.

However, the Internet.org team does not plan to tackle some thorny infrastructure issues that are huge barriers in the developing world, particularly the long-distance transmission of data to far-flung places.

Michuki Mwangi, regional development manager for Africa at the Internet Society, a nonprofit group that has long worked to expand global Internet access, said the continent sorely lacked local interconnection points, forcing most requests for content like YouTube videos to be routed through Europe at high cost. Creating more connection points would require navigating a thicket of government interests and powerful incumbents. But at the very least, the group would like Facebook and Google to put copies of their content on a greater number of African servers to deliver it more quickly and cheaply, something that both companies say they are considering.

As with the Open Compute coalition started by Facebook in 2011 to improve the efficiency of data centers, Facebook will seek to add other partners to Internet.org, including national governments, wireless phone carriers and Microsoft, a longtime Facebook ally that has its own projects to expand access.

But Google — whose search and YouTube video products are as fundamental as Facebook's social network to many Internet users — is likely to remain outside the group.

For one, its own efforts to expand Internet access are aggressive. In addition, the company is constantly refining its Android software, which runs the majority of new smartphones sold, to improve efficiency and battery life.

“We’re always making investments in technology and programs to help people get online,” said Courtney Hohne, a Google spokeswoman. “We have teams around the world working on products tailored to local needs.”

Bill Gates, the chairman of Microsoft and co-chairman of the Bill and Melinda Gates Foundation, recently suggested that Project Loon and similar projects were not the best use of resources to help people in the poorest nations.

“When a kid gets diarrhea, no, there’s no Web site that relieves that,” he said in a recent interview with Bloomberg Businessweek.

Mr. Zuckerberg acknowledged that basic health care is essential, but said that “if you can afford a phone, I think it would be really good for you to have access to the Internet.”

The potential is already obvious in places like the Philippines, where the second-largest mobile phone company, Globe Telecom, has used free Twitter, Facebook or Google access as promotions to increase the number of its 37 million users who also subscribe to a mobile data plan to 20 percent from virtually zero in two years.

“Once you’re connected, you’re connected, and you don’t want to look back,” said Peter Bithos, Globe’s senior adviser for consumer business.

For Facebook, which generates most of its revenue from selling advertising that it shows to its users, the immediate profits from expanding Internet access will be minimal, Mr. Zuckerberg said, although he acknowledged that the long-term potential was there.

“We’re focused on it more because we think it’s something good for the world,” he said, “rather than something that is going to be really amazing for our profits.”