

Google, Microsoft Vie to Lead Health IT Change

Eventually, system will enable patients to schedule appointments, refill prescriptions, and use other tools.

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WASHINGTON — Search engine giant Google has joined software giant Microsoft in an attempt to revolutionize health care information technology, one patient at a time.

Google launched Google Health this spring with an aim of establishing itself as the leading repository of personal health records (PHR). Google is also positioning itself as a primary clearinghouse for clinical information, self-care tools, and provider ratings to help patients make educated health care decisions.

Google Health emerged just as the smoke began to clear from Microsoft's launch of its own HealthVault PHR platform last fall.

Both companies see individual patients, not health care systems, as the primary locus of change for health care information technology, and both provide individuals with secure but user-friendly systems for aggregating all of their health care records, data, diagnostic images, laboratory results, and medical histories. They hope to put an end to the fragmentation, duplication, and lack of portability that characterize paper-based health record-keeping.

Executives at both HealthVault and Google Health said they believe digitally enabled patients will help push more doctors to implement electronic medical records systems in their offices.

Todd Wiseman, head of Google's Federal Enterprise Team, says the creation of Google Health was a natural move. "We now have more than 1 billion people worldwide using Google every day. Google is the No. 1 search engine for health information, and health topics are a top search category for Google," he said at the fifth annual World Health Care Congress.

Google Health will allow people across the country to store their PHRs and allow them to make their own determinations about who may have access to those records. Users also will be able to store medical contacts and other relevant information.

"Users should have easy access to their medical records, and should be able to act on their data. Medical records should follow the patient and exist in an environment of interoperability, portability, privacy, and security," Mr. Wiseman said. "We don't hold our users' data hostage."

The system can automatically import physician reports, prescription history, and lab results. Eventually, it will enable people to schedule appointments, refill prescriptions, and employ personal health and wellness tools, Mr. Wiseman said. Google Health's PHR function also will be enriched with specialized health-oriented search functions, clinical trial matching, and a host of other health management tools, all of which can be integrated with a user's Gmail e-mail account.

Google Health will not charge people to store PHRs; likewise, doctors will be able to access their patients' PHRs—with pa-

tient permission, of course—at no cost.

"We don't have any plans for ads within the Google Health product," Mr. Wiseman said. "We see it as a way to drive more Google search traffic." The search returns, of course, will arrive with ads and sponsored placements (just like every Google search), but he stressed that the PHR side of things will remain free of commercials.

Google is currently running a pilot field test of the Google Health system in partnership with the Cleveland Clinic. "We're 2 months into that, and we have 1,600 Cleveland Clinic patients storing their PHRs right now. This will go up to about 10,000. We're testing the process of data sharing in a live clinical-care delivery setting, with real patients and real doctors. The goal is simply proof of concept."

Mr. Wiseman pointed out that Google has significant advantages over other companies vying for a piece of the evolving PHR market. For one, the company is wholly independent and not tethered to any health care plan or provider system, so a Google Health PHR is completely portable. Users would be able to access their records even if they change health plans, jobs, or even countries.

Mr. Wiseman stressed that, as a company, Google is a neutral stakeholder as far as how someone uses their PHR, which is different from PHR systems tied to specific health plans. "We stand by the user and the user only."

Google has one more major advantage: massive data storage capacity.

"We can store and manage a LOT of data," Mr. Wiseman said, noting that Google already gives its Gmail users six gigabytes of e-mail storage capacity. "That's a lot. And when you think about storing x-rays, MRIs, and other things like that, there will be a big need for memory."

Google Health essentially is head-on competition for Microsoft's HealthVault, which has been up and running since last fall. While Microsoft has been involved in health care IT solutions for hospitals and health plans for more than a decade, its PHR efforts are fairly new, said George Scriban, senior product manager for HealthVault.

In an interview, Mr. Scriban said HealthVault, which is also free to consumers, tries to solve one of the most frustrating health issues for ordinary people: fragmentation. "Fragmentation of delivery of care has a lot to do with fragmentation of someone's health care identity. Everybody's health care identity is spread around in little slices in different sectors. The employer has some information, various doctors have others, hospitals and payers and pharmacies have still others. The ideal is to have all one's information, presentable and portable and useful to any and all providers," Mr. Scriban said.

Essentially, HealthVault is a consumer-controlled hub for gathering and controlling information from various sectors of a person's "health care ecosystem."

Mr. Scriban said that he understands that some physicians get nervous at the thought of patients in control of their own medical records. But he believes that systems like HealthVault and Google Health are really just systematizing what already happens informally.

"When a patient gets a referral from one doctor to another, it is really that patient who acts as an information transporter, telling the new doctor his or her medical history, medication use, and in some cases actually transferring paper records," he said.

HealthVault tries to standardize, stabilize, and formalize that process, and Mr. Scriban contends that this will reduce errors, prevent loss of important information, eliminate redundancy, and give physicians a fuller picture of their patients' health. He added that HealthVault is be-



Google Health and HealthVault aim to help patients make informed decisions.

ing designed to interface with many different electronic medical records systems. He said that he hopes that as more patients create PHRs, more doctors will see the ultimate value in interconnectivity.

HealthVault and Google Health are similar in many respects.

"Both are backed by large companies with a lot of resources; [both companies] have looked at the same problem and arrived at similar conclusions. One conclusion is that you cannot revolutionize health care in one big step. The other is that the consumer is really the agent of change in all of this," Mr. Scriban said.

Still, there are some differences. He stressed that Microsoft is primarily focused on enabling people to manage their health information, and less engaged in providing self-care tools, something that Google is pursuing.

Although it is natural to view the current landscape as a clash of the IT titans, Mr. Scriban thinks that view is overstated. "In the end, we're really glad that Google has joined us in attempting to deal with the problems of personal health information management. I don't think it's really a Google vs. Microsoft scenario. It's more like Google, Microsoft, and all of us who are involved in PHRs and EHRs versus paper!"

Google and Microsoft are engaged in lining up partners across the health care landscape, including insurers and managed care plans, information service providers, medical organizations, and patient advocacy groups.

Microsoft recently partnered with Kaiser Permanente, an integrated health plan with more than 8 million members,

to test the transfer of data from Kaiser's personal health record into HealthVault. The pilot project, launched last month, is open to Kaiser's 159,000 employees. The idea is to combine the clinical data entered by Kaiser physicians, which are available in the Kaiser personal health record, with patient-entered health information and clinical information from providers outside of the Kaiser system.

"Providing new ways to manage their health online is one more way we can engage consumers in their care," Anna-Lisa Silvestre, vice president of online services at Kaiser Permanente, said in a statement. "We believe that Microsoft HealthVault will be a valuable supplement to our expanding set of online features."

Kaiser officials plan to reevaluate the pilot later in the year before expanding it to Kaiser members.

Google's Mr. Wiseman said it is particularly important to create alliances with health plans. "A lot of people won't use Google Health unless their health plans support it." Google's other major focus is on consumer decision support tools.

Among Google Health's new partners is HealthGrades, the private company that has quietly emerged as the leader in online physician and hospital ratings. HealthGrades uses publicly available data on quality outcomes based on 32 standardized procedures and health conditions to grade physician and hospital performance. The ratings parameters are based on work done by the National Quality Forum.

"HealthGrades' mission is to guide Americans to better health care," said Dr. Samantha Collier, chief medical officer of HealthGrades. "There are enormous gaps between what we know we could do and should do, and what actually happens in health care. There are vast gaps between the best and worst hospitals and clinics."

Currently, Web users seeking HealthGrades ratings for a doctor or hospital must pay a fee. Under the partnership agreement, Google Health users would have free access to the ratings.

The specifics have not yet been worked out, but the idea is that Google Health users searching for doctors or clinics would obtain a listing of the top 10 appropriate practitioners locally. Each listing would contain basic contact information, as well as a "more" button, clicking on which would allow the user to see the full HealthGrades profile for that physician or hospital—including any disciplinary actions or malpractice cases, past or pending.

At issue is how Google and HealthGrades will determine which practitioners or facilities show up on the top 10 list for a particular search. Dr. Collier and Mr. Wiseman said that initially, the order of rank would be based on Google's standard model, which lists the most trafficked sites highest. The rankings would not be based on the HealthGrade scores.

One thing is certain: With major IT players like Google and Microsoft entering the arena, PHRs and electronically empowered patients are going to play a significant role in reshaping health care over the next decade. ■