Playing with Health

A computer programmer turns his attention to making wellness fun.

Virtuous. Boring. Hard work. This is how most people view managing their health. But if Americans are to truly thrive, they must be convinced that health-promoting behavior can be fun, says Adam Bosworth ’76. He has built a company around doing just that.

Keas, headquartered in San Francisco, runs a Web-based wellness program that uses social networking and gaming to boost excitement about improving one’s health (http://keas.com). It is currently available only to corporate clients, not individuals; participants form teams with co-workers and set personal goals, earning points as the goals are reached. They choose from dozens of options—increasing fruit and vegetable intake, exercising more often, taking “mindfulness breaks” for activities such as journaling, to name a few—selecting those that will be easiest or most fun for them, while still contributing to better health. “We are as undictatorial as possible,” reports Bosworth, an Internet entrepreneur who has also launched major products at Microsoft and Google.

That may seem counterintuitive—surely it would be more productive to force people to choose those objectives that would most benefit their health, even if reaching them is difficult. Bosworth says this tough-love approach only works in theory. In reality, users who choose overly
hard challenges are more likely to drop out. "We understand that a wellness program that isn’t being used has zero chance of success," the company’s website asserts. "Keas is designed to engage employees first, and then make them healthy."

The company’s current product represents a 180-degree turnaround from Bosworth’s initial idea: "The only thing that’s identical," he says, "is our goal." Frustrated with the healthcare field’s slow adoption of new technology for communicating with patients and tracking and giving them access to their own information, he founded Keas (named for a species of parrot he encountered during travels in New Zealand) in 2008 with the idea that it could become a Mint.com for the industry. (Mint enables users to analyze their finances by consolidating information for multiple bank, loan, and credit accounts in one place. The site also offers budgeting tools, financial alerts, and advice, and allows users to set savings goals and track different expense categories.)

His initial vision was that Keas would be a repository for users’ health data that could send reminders based on individual conditions (a user with hypertension might be alerted to take medication as scheduled; an overweight user might get prompts to exercise). He forged alliances with two big players in the medical field: Quest Diagnostics and Pfizer pharmaceuticals, tentatively paving the way for a tool that would contain users’ medical-test and prescription information if they authorized it. He envisioned spending ample time lobbying in the 24 states that forbade sharing health information even with a patient’s permission. He was girding for battle two years ago when it became clear that the Keas product in use at the time simply wasn’t working: of the 40,000 users who had signed up, only a small percentage returned to the site week after week.

So Bosworth and his team of 20 examined the features that seemed to attract the users who were most engaged. They redesigned the product completely, with crucial guidance from a summer intern with a background in behavioral psychology. (The company has since made a point of hiring others with knowledge of psychology.) Enrollment was restricted to employees of client companies because the team-based format capitalizes on people’s cooperative and competitive instincts, and on preexistent social relationships in the workplace; based on small-group dynamics theory, team size is limited to 6 people. Keas used to offer lengthy articles on health topics, but now it breaks the information into small chunks and makes it interactive by presenting it in quiz form. Topics include nutrition, stress reduction, depression, CPR, and cutting cholesterol intake. The quizzes have been wildly popular: Keas posted 60 of them for a 12-week pilot, assuming one per workday would suffice, but many users completed the full complement in a single week. (The site now has “hundreds and hundreds,” Bosworth reports: so many that users “essentially can’t run out” during the 12-week period.)

As part of the overhaul, Keas also did away with critical feedback. Instead of receiving a notice that they’ve gained weight, users now receive only congratulatory notes when they shed pounds. Bosworth says he realized that “giving people negative information is a good way to ensure that they’re gone in 60 seconds. And if they’re gone in 60 seconds, you can’t help them.”

The revamped product plays up the social-networking element with a Facebook-like interface that users can access via desktop, tablet, or smartphone. In addition to tallying up their points in private, users can post (and get an instant virtual pat on the back) for going for a lunchtime walk or choosing water instead of soda. Keas also borrows elements from Four-Square: users can earn badges and elevated status within the game’s universe, and see how they rank against other players and other teams. The company’s website proclaims, “The world’s most precocious bird, the kea solves problems through play and social learning. So do we.”

People like to have choices, and this, too, is reflected in the new model: users earn more points for more difficult goals. They can, for instance, set a goal of eating only healthy snacks for an entire week, or choose the more easily attainable goal of five days a week for a smaller point total.

Bosworth knew the new format was working when, on Thanksgiving Day 2010, 30 percent of enrollees went online to report what they were doing to stay healthy. Since then, not a single week has passed without a third or more of the employees in each of the client companies logging in and posting something. Most weeks, in most companies, the numbers are closer to 40 or 50 percent.

Thus far, Keas has done very little marketing or promotion, letting companies find it through word of mouth instead. Many clients are themselves from the health and wellness fields (Quest and Pfizer, Bosworth’s early partners, are among them). Bosworth notes that these firms’ employees are not necessarily more fit and health-conscious than the average American; he says the companies have been drawn to Keas because of the discrepancy between the image they desire to project...
and their staff members’ actual health. To date, more than 100,000 people from 35 companies have completed the 12-week program (clients pay $12 per participating employee). Keas has begun enrolling some companies for a second 12-week stint; Bosworth and colleagues are hard at work devising ways to keep the experience fun and novel for repeat visitors.

The product is constantly changing—Keas releases updates two or three times a day—and relies heavily on user feedback, letting the crowd decide which features stay and which go. One change is that the program now limits users to setting three goals; habit creation is sufficiently difficult that when there are too many things to focus on, none of them takes.

After noticing that there was no difference in participation between companies that offered cash prizes to the winning team and those that didn’t, Bosworth stopped recommending that companies pony up. “To be honest,” he says, “Keas is nothing but a series of psychological surprises to me.”

Before Bosworth turned his attention to solving problems of health, he spent three decades solving problems of technology. His previous work experience includes leading the design of the Microsoft Access database management system; co-leading a team to redesign the Internet Explorer browser; and overseeing the rollout of Google’s Web-based spreadsheet, document, calendar, and photo-sharing programs. But he is best known as one of the pioneers of XML, a set of rules for how information is shared between computers (and the basis for frameworks such as RSS, as well as common software such as Microsoft Office).

During what he calls a “classic midlife crisis,” Bosworth realized he didn’t want technological innovation to be his only legacy apart from his children. (Son Alex, 23, has a start-up building smartphone apps in Beijing; daughter Allison, 23, is finishing premedical courses at Washington University; and Zeke, his son with his second wife, is one and a half.)

In 2006, while still at Google, he sought permission to pursue a project of his own design. The result was Google Health, an online health information repository much like his original vision for Keas. But he says the product was not a high priority for the company and he had trouble getting resources allocated, so he left to try it on his own. (Google officially deactivated the service on January 1, citing a low usage rate.)

One gets the sense that Bosworth is almost happier with failures than successes, for the lessons they provide and the problems to solve. Describing his first start-up, a company he founded with friends in 1982 to help people and companies manage data (a precursor to database software), he says it failed because it didn’t include a way for users to customize and add functions that weren’t part of the standard software. “It was a fatal flaw;” he notes, “and very interesting.”

At Harvard, he studied history. He sees continuity between his interests then and now: “History teaches you to take data and look for patterns. That’s very much what I do in my job.” But in some ways, his college years were a time apart. Bosworth grew up in New York City, but spent summers in Vermont, and fondly remembers how he and a sister close to his age spent their time reading voraciously and “running riot” in the woods.

At school, he was no less free. He attended Saint Ann’s School in Brooklyn, where his father, Stanley, was the inaugural headmaster. Under his leadership, Saint Ann’s became an elite school known for its “free-form approach to education,” according to Stanley Bosworth’s New York Times obituary. “The school didn’t push you,” Adam Bosworth recalls. “You moved at the pace you wanted to move based on the courses that interested you. That worked well for me.”

Harvard, on the other hand, “was very much about telling people what to do.” He feels he got in “by accident”: “I’m very good at test-taking so I appeared smarter than I was.” He is dyslexic and says he doesn’t deal well with theoretical constructs: “I have to form pictures in my head and work backwards.” Surrounded by people with methodical, traditional study skills, this non-traditional learner found the culture stifling.

He found relief in spending the summers programming (projects included rewriting the code that powered off-track betting ticket-printing terminals). He says he likes building things; he once aspired to become an architect, but realized the mathematics involved wouldn’t come easily for him. Programming did—and still does. A new Keas “console” screen that allows human-resources representatives at client companies to track the employees’ progress was programmed by Bosworth himself.

He still wishes for change on the doctors-and-hospitals side of medicine, so that providers, insurers, drug companies, and testing labs could share information freely if a patient authorized it. But he no longer believes that he is in a position to drive that transformation. Because of the way payments to providers are structured, “There is absolutely zero financial incentive for making these changes, even if they would increase efficiency and patient satisfaction. “For most of healthcare,” he says, “it’s as if the Internet never existed.”
Instead, he is approaching health from the level of the individual, and Keas brings substance as well as fun. At Chilton Memorial Hospital in Connecticut, for example, 114 participants reported losing weight during the 12-week session—1,230 pounds in all. At Pfizer, the percentage of participants who exercised for 45 minutes at least five times a week rose from 45 to 74 percent, and the percentage who ate at least five servings of fruits or vegetables daily doubled (from 36 percent to 72). Says Bosworth, “We’re getting major changes in health behavior.” ~Elizabeth Gudrais

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