

Bullet Train

Knowledge Universe, the company that was a speck on the horizon three years ago, has become a speeding train that's hard to ignore.

Knowledge Universe, a congeries of companies related to learning of one kind or another, is growing so fast it can't keep its brochures up-to-date for more than a month. Started in 1996 with a personal investment of more than \$500 million by financier Mike Milken, his brother Lowell, and Oracle's Larry Ellison, it has been a shadowy but swift player in the human capital development industry. Acquiring companies at the rate of at least one per quarter, KU always had speed, and now it is acquiring mass.

If you can't keep up with KU's purchases or make strategic sense out of the package it has assembled, don't worry. Financial analysts can't place it in a market niche, trainers can't figure out what they're competing with, and even KU employees give different versions of what, besides learning, links the pieces together.

Clark Aldrich, a senior analyst at the Gartner Group, thinks the premise that learning can tie a number of disparate companies together "is about 20 years too early." He points out that Teck-Check (a KU product that measures IT skills) is a necessary front end to any comprehensive training program in which competence management dovetails with a training mission but right now is a stand-alone. "To me, [KU's] focus borders on insanely broad," says Aldrich.

But one company insider says KU's vision is so large and so different from conventional thinking that it will take time for the whole picture to become clear. A recent version of a KU brochure states: "Our mission is



Knowledge Universe's Tom Kalinske

to help build human capital from birth to post-retirement; to provide lifelong learning opportunities for individuals and businesses and to help businesses better utilize the power of their human capital." Does that explain why KU, which started with an empty shopping cart, has acquired an assortment of IT training companies, a chain of child-care centers, a knowledge-management consulting business, and an educational toy maker? Sort of.

One view of Knowledge Universe is that it intends to be the first mega brand in lifelong learning—a market that has been estimated at about \$665 billion a year. Many people consider that wasted spending: Public schools are failing to educate, and adults in the workforce don't have the skills that em-

ployers need. To market analysts, the need for better education for kids and adults spells a huge potential market.

"It makes sense that KU would be one of the top four or five players, but until you see a mass-media company like Disney or Time Warner joining the fray, the race won't really begin," says Aldrich. "Right now, the [education] market looks like a duck in the water—calm on top, but the little legs are paddling like mad below."

The Knowledge Universe family of companies comprises these elements:

- Knowledge Enterprises includes a knowledge-management consulting firm, a maker of IT proficiency tests, a British information-technology staffing and training company, and a networking

and seminar company for CEOs.

- Knowledge Universe Studio is the umbrella for the development of interactive learning products and services. It also includes Knowledge Publishing and MindQ Publishing.

- Knowledge Universe Training has only one company at the moment, Productivity Point International, a U.S. chain of IT training and consulting franchises.

- Knowledge Beginnings operates 250 preschool and child-care centers across the United States.

- Knowledge Kids Enterprises includes LeapFrog, an educational toy company specializing in phonics, reading development, language and math skills, and electronic interactive books.

- Teacher Universe, formed in January 1999, offers teachers instructional-technology planning, professional development, instructional tools, and career and life services.

Long ramp, fast ride

The Milkens and Ellison may own most of Knowledge Universe, but Tom Kalinske, a former Mattel and Sega executive, runs it as president.

Kalinske beams energy. And who wouldn't be juiced by KU's fast ride? In just three years, the company has grown from an idea to a burgeoning empire of companies offering learning opportunities to everyone from babies to CEOs. In 2000, KU's goal is to have \$2 billion in revenues and to court learners from cradle to grave. Knowledge Universe indeed.

Twenty years ago, when Kalinske was president of Mattel Toys, Milken provided refinancing that saved the company from chapter 11 and allowed Kalinske to bring it back from the brink by reviving the Barbie brand into a \$500 million business. Milken and Kalinske became friendly. They shared an interest in "doing something in the education area" and pestered each other for contributions to

their favorite children's charities. For the next 15 years, they talked about various for-profit ideas in education, while continuing to do other things—Milken in finance and Kalinske in interactive entertainment software. Ellison, CEO of Oracle, joined their conversations in the 1990s.

A diagnosis of prostate cancer in 1993 postponed Milken's plans to act on the long-held education ideas. But in 1996, he put together the financing, and Kalinske assembled a team to scope out the education market. "Our definition of education was anything that helped people improve and change their lives," says Kalinske. After six months of research, they identified 31 potential market segments, including career management, early childhood education, educational toys and software, workplace education, training, HRD, staffing, strategic and technology consulting, and testing and assessment. "Obviously we couldn't be in all of them," says Kalinske, with what sounds like a tinge of regret.

In March 1999, Kalinske and a chunk of the company moved into a new, two-story building in a Silicon Valley office park. With its Dilbertish cubicles and a color scheme from the Crayola starter pack, it has the air of a company moving too fast to attach itself to glitzy real estate.

Kalinske occupies a corner office, but investors' money has not been wasted here. Toy frogs squat on the computer monitor, a cel from a *Flintstones* cartoon hangs behind the desk, and family photos show his pack of kids. It hardly looks like the epicenter of a company that wants to change the face of for-profit education.

The KU building sits in the middle of the traffic pattern for a regional airport. Light planes pass Kalinske's second-floor window on their way to land; he doesn't seem to notice. He's deeply engaged in some of KU's most recent ventures—an incubator for small Internet companies that focus on education, a line of print and electronic business primers, a technology that has potential for interactive children's books, and an online university where the professors are Nobel laureates.

Start with what you know

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Knowledge Universe's first acquisition, in September 1996, was an IT training company. "We started with an area we knew a little bit about," says Kalinske, referring to Ellison's IT training venture at Oracle. Oracle Education is the second largest IT training provider in the United States.

That first purchase, CRT, was a large IT training company headquartered in the United Kingdom and operating across Europe. Its initials stood for its three lines of business: consulting, recruitment, and training. Knowledge Universe took a 51 percent interest in CRT after persuading British shareholders that the company would be worth more if they let the Americans in. Revenues jumped from \$170 million in 1996 to \$730 million in 1998. Half of the growth came from the bolt-on acquisition of small training companies and half from CRT expanding into such areas as career and workforce management, teacher representation, and project management. In 1998, CRT changed its name to Spring Group.

A portion of Spring's business is training dropouts from the British school system. The company receives no payment until a student gets a job. "One of the things we like about that business is that it makes us feel like we're doing something worthwhile," says Kalinske.

Soon after the CRT deal, the KU group came across Productivity Point International, a collection of computer training franchises in the United States. "Everyone wanted a different deal, of course," says Kalinske, "but a significant number of the franchisees wanted to be part of a larger company." KU rolled up 29 franchises, began to streamline operations, and undertook what Kalinske calls "fairly rapid expansion."

At least half of PPI's business now comes from consulting on IT training issues and customizing IT training for particular needs. After the rollup and the addition of consulting services, PPI's revenue grew from \$120 million to \$250 million projected for 1999. "Consultation is where we think PPI offers the most value and, frankly, that's what we focus on," says Kalinske.

The next acquisition was Bookman Testing Services. Under the brand name TeckChek, Bookman has been offering vendor-independent IT proficiency tests since 1987. Companies use the tests to screen prospective employees and for pretraining and post-training assessment. The computer-based tests adapt to each test taker's knowledge and level of expertise. Alan Epstein, a former Disney executive, heads Bookman, which Knowledge Universe purchased in 1998.

After three IT acquisitions, Kalinske's group started looking for a consulting business to buy. But instead of buying, they built one around Gresham T. Brebach Jr., a former McKinsey employee and one of the original Andersen Consulting partners. KU bought out his consulting practice and beefed it up with the acquisition of Pyramid, SIGMA Consulting, Symmetrix, The Planning Technologies Group, Sibson & Company, and Lexecon. The new entity was named Nextera, as in "next era." In February 1999, KU filed with the SEC to take Nextera public. The net proceeds from the public offering could be \$133 million to \$153 million.

The SEC filing document states that Nextera intends to seek additional business outside of the United States. Part of its strategy is to focus on business performance solutions, which include strategic and knowledge-management systems and the technologies that support them.

Next to be acquired was The Executive Committee (TEC Worldwide), a membership organization for CEOs and company founders. In small groups led by retired CEOs, professors, and executives, the members meet a half day a month to share information, ideas, and expertise related to their own business issues. Membership is by invitation only. Kalinske says this elite support group is "kind of like the Young Presidents Organization, but more serious."

Knowledge Universe could hardly be

a contender in the online learning wars without an electronic university. "This fall," says Kalinske, "we hope that U Next.com will be up and running." For starters, UNext.com will be offering graduate-level business courses by well-known professors, including some Nobel laureates, from a variety of universities. The asynchronous online courses will be available via the Internet, and there will be opportunities to chat electronically with professors and other students in small groups. "We hope to make U Next.com a degree-granting institution," says Kalinske.

KU doesn't always get the companies it wants to acquire. "We were not successful in buying an educational software company," says Kalinske. In open auctions, they lost Edmark to IBM and Knowledge Adventure to Cendant. "We said, 'What the heck' and bought LeapFrog, an educational toy company that specializes in phonics."

LeapFrog was built around a product invented by a lawyer whose child was having trouble learning to read. It was doing about \$10 million a year when KU bought it. Two years later, it's at \$70 million after expanding its product line and after Kalinske opened doors to the big commercial toy sellers. "We've acquired some unique technology that will allow us to do interactive, talking books," says Kalinske. "We see tremendous opportunity for us in educational products for children in the three to 10 age range."

Because of Lowell Milken's interest in early childhood education, the group began to look for a child-care business to acquire. They found Children's Discovery Centers, a chain of 170 preschool and day-care centers that had gone public but was still strapped for cash to invest back into the business. KU acquired the company, took it private, and began to improve the real estate, build the curriculum, and introduce technology into the learning programs. "Because of the heavy investment we're making now, it's not going to be highly profitable for a while," says Kalinske. "It will probably do \$150 million in revenues in 1999." It now goes by the name Knowledge Beginnings and works with corporate clients to meet the education and day-care needs of their employees and children.

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A few months ago, KU started a new company called Teacher Universe. Picking up on NEA's and other studies that show that most teachers lack computer skills, KU plans to offer training that applies different types of software to specific teaching tasks. "For example," says Kalinske, "we'll show teachers how to use Microsoft Word for teaching English or use Excel for teaching math. We'll help them go online and find resources for their classes. We want to help them use the computer to facilitate their teaching."

The studio

Where does a company such as Knowledge Universe, deep in the business of helping companies mine their knowledge assets, leverage its own brainpower? Part of the answer lies with Knowledge Universe Interactive Studio, a hothouse for KU's big ideas about learning and technology. If KU's money, clout, and brainpower add up to more than just another consolidation of training services, the work going on at the studio will be at the center of KU's success.

Housed in a renovated warehouse in San Francisco's East Bay, the small KU subsidiary is where key products are being developed by teams of Ph.D. cognitive psychologists, educators, computer scientists, knowledge-object developers, and graphic designers. The studio has its own subsidiary, MindQ, based in Reston, Virginia. Together, the two companies employ 90 people.

Leading the team is Joe Miller, a PLATO pioneer, whose career path led him from the Batelle Memorial Institute—a think tank for technology applications—to Sega, where he was VP and chief technology officer for Sega of America and a cofounder of Segasoft.

There, he met Tom Kalinske. In 1997, when Knowledge Universe began to take shape, Miller convinced Kalinske and his boss, Mike Milken, to fund the studio as a startup.

"The idea is to have a single place within the KU family of companies that combines the best thinking about learning, learning theory, and the cognitive process—with the best talent in technology. Our focus is creating solutions that deliver on the appropriate use of technology as an adjunct to lifelong learning," says Miller.

Here's another example of Knowledge Universe capitalizing on a perceived shortcoming in the learning industry. Many learners don't find the computer-based learning experience fun or fruitful. Some instructional designers criticize the whole movement to date as little more than automated page turning. Technology, rather than learning, drives many CBT products on the market today. Kalinske, who has tried many of them, says, "I don't know how anybody can stick with it for hours. So many of them are dull and boring. No hands-on learning, not enough interactivity."

"The studio's goal is to create an effective learning experience," says Miller, "as opposed to just adapting a general technology solution to computer-based training." To get there, the studio is exploring the process and science of learning, the notion of multiple intelligences, learners' adaptive techniques, and the role that tailored assessments play in a learner's progress. It's focusing on three areas: a highly personalized assessment tool, a computer software platform that can assemble knowledge objects to meet a learner's specific needs, and a library of content. The platform will also be able to manage a company's online and classroom-based learning programs.

Versions of the three integrated products are in use at various companies, but Miller doesn't want to talk too much about them "until we get to the 1.5 release," probably this September. "There is so much hype about what's coming around the corner in this industry that I don't want to add to it," he says.

The studio's assessment tool is a hybrid of various cognitive models. With the user's help, it captures knowledge about learning styles, motivation for

learning, and other information that could make a person a more effective learner. "This tool gives users some empowering information they can use in their day-to-day lives, both personal and professional," says Miller.

He describes the tool as "engaging at the gut level." Though it's built around principles of neuroscience and studies of learning behavior, it has some elements of whimsy and fun to encourage users' cooperation. It's already many steps ahead of the typical multiple-choice assessment tool, Miller claims. "I won't pretend we're anywhere near finished, but we've come up with a model that gives us a base for the way we want to deliver content."

The assessment tool is part of a software platform that hosts not only the information about a learner's unique learning styles and preferences, but also information about existing and missing skills related to specific curriculum objectives. The skills-assessment feature is embedded in the learning objects that make up a course. As the user works through a course, the software selects from a large library of learning objects. It picks those that make sense for that particular learner, and it can shorten and optimize a learning path.

One of the things that frustrates Miller about most online learning systems is that they assume that the users who fail to learn something must be at fault. "That's generally not the case," he says. "There's usually something wrong with what they saw. Our approach to remediation is to use some cues from users to figure out which adjacent learning objects to give them, twisted about five degrees, to try again. We don't want to take people back through a path that clearly wasn't successful for them."

The software can be used by individuals to plot their own learning objectives or by employers for the learning goals of



Knowledge Universe Interactive Studio's Joe Miller

many individuals. It is designed to work with large HR information-management systems and to handle such tasks as registration, curriculum customization, and record keeping. Miller points out that in the absence of hard and fast industry standards for such products, the studio has adopted a "metadata" format for delivering the product. "We don't intend to be proprietary. We're very interested in helping accelerate and establish broad standards, and we're working with various groups, such as the IEEE, to move that along."

The product is currently shipped under the name Telemachus (pronounced *tell LEM a cuss*). In Greek mythology, Telemachus was the son of Penelope and Odysseus, who contrived with his father

to slay his mother's suitors by means of a cleverly orchestrated archery competition. Telemachus also had help from the goddess Minerva, who took human form under the name Mentor.

To show off its assessment and learning management software, the KU Interactive Studio has been building content for the clients of some of KU's other subsidiaries. It created a privately branded product for Productivity Point International, the KU sub that offers IT training. Through its subsidiary, MindQ, the studio has a small salesforce and brand of its own. MindQ products focus mainly on technical training for software developers.

"Our intent is not to build all the content needed to service all the KU cus-

tomers,” says Miller. “We want to create a very fertile content community where we will provide guidance, tools, best practices, templates, support, conferences, and a distribution channel for our customers and their content. I believe that we will win in this phase by having the broadest possible author base inside and outside our firewall creating the largest possible number of learning objects.”

The glue

If the thread linking all of the KU companies is learning, the glue that might bind clients to a suite of KU products is the quality of the experience KU is able to give them from childhood on. “Our hope is that, over time, people who’ve had a good experience with one Knowledge Universe company will seek out others because of their confidence in the brand,” says Kalinske.

Joe Miller has no trouble applying that notion to the learning software developed at the studio. “The basic premise is that the profiling information we host and add some value to for learners can accompany them through various phases of their lives and careers. Each time they enter our system from a new angle, we already know about them. The content in our products might be dramatically different, but not the overall delivery of a personalized learning experience.”

Miller and other KU leaders hope customers with learning needs will look for the KU affiliation, much as a computer shopper looks for the *Intel inside* marker on hardware. If KU succeeds at creating an online learning experience in which the instruction is an invisible servant to the learner, that will help move the education spotlight where many people think it belongs, on the learner.

What next?

For now, the grand design of Knowledge Universe is like a complex computer graphic that has only partially downloaded. Its acquisitions seem almost random, its content is all over the map, and its customer base is a mix of corporate clients and what we at *T&D* are calling Free Agent Learners.

Some of KU’s competitors in the training business view Kalinske as chickens might view a fox that has slipped into their private henhouse. “He may have been a whiz in the toy industry, but train-

Some of KU’s competitors in the training business view Kalinske as chickens might view a fox that has slipped into their private henhouse.

ing is different,” sniffs one. It’s clear that KU doesn’t resemble the big training companies that grew from the vision of platform stars such as Ken Blanchard or Stephen Covey. The stars at KU, if any emerge, will be the products. For Kalinske, and many of the masters of the various kingdoms of the universe, education is more a business than a calling.

Except for Michael Milken, for whom this venture seems to be both. With his brother Lowell, he has been a supporter of K-12 education for decades. In 1997, the National Association of State Boards of Education awarded the Milken brothers the Friends of Education Award for their “enduring and significant contribution to education” through the Milken Family Foundation.

Ellen Julian, of International Data Corporation, finds it exciting that Milken “has chosen education as a platform for doing good. Wall Street already knows he’s smart and savvy about money. The financial community will put more emphasis on the [education] industry when people like Milken and Kalinske are part of it.”

Joe Miller credits Milken with exceptional vision about education. “Milken sees a huge wind shift and a significant opportunity to really change the face of education broadly for the better.”

Milken is not alone, of course, in seeing a business opportunity in the fragmented private education and training industry. Nor is he the only one to be stirred with a sense of mission about education or to see the potential of technology to transform it.

With its deep pockets, top-flight management team, and aggressive moves, Knowledge Universe is bound to make some kind of difference to the industry that is swirling around knowledge workers and the companies that employ them. But what kind of difference?

“I can’t think of anyone else in the market right now that’s better positioned

to really approach learning from kindergarten through retirement,” says Julian. “[Knowledge Universe] will be one of five or six contenders.”

Some analysts are concerned that they don’t see a technology infrastructure in KU’s portfolio—no cable companies or satellites on which to deliver their products. Julian thinks that KU will develop content that will “populate other people’s learning networks” and that this will “help standardize the brand.”

Clark Aldrich of the Gartner Group offers a scenario in which KU turns its corporate education businesses into cash cows that provide capital for public education reform. “It’s a plan that gives coherence to the whole enterprise.”

A lot depends on the future of two factors that are driving the training industry now: the strong U.S. economy and the consolidation that is going on among training suppliers and technology companies. Aldrich sees two possibilities. If the economy holds and consolidation continues, the training industry will coalesce around a very few key players. If the economy falters and consolidation comes to a halt, training via technology won’t be very good. He says, “The budgets just won’t be there to support its development. If the economy goes south, the training industry could be cut by two thirds.”

Ladies and gentleman, fasten your seatbelts. □

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